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Vol. XXXIII, 3 Whole No. 195

THE PHILOSOPHICAL REVIEW

EDITED BY

J. E. CREIGHTON

OF THE SAGE SCHOOL OF PHILOSOPHY, CORNELL UNIVERSITY

MAY, 1924

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PUBLISHED BI-MONTHLY

LONGMANS, GREEN, AND CO.

LANCASTER, PA.

55 FIFTH AVENUE, NEW YORK

SINGLE NUMBERS $1.00 (8s.). PER ANNUM $5.00 (25s.)

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LONGMANS, GREEN, AND CO.

Prince and Lemon Streets, Lancaster, Pa.

55 Fifth Ave., New York City.

Entered in the post-office at Lancaster, Pa., as second-class matter

Number 3. *Whole*
Volume XXXIII. *May, 1924* *Number 195.*

THE PHILOSOPHICAL REVIEW.

THE CONFLICT OF ASBOLUTISM AND REALISM.

THERE was a time not so long ago when Idealism, at least in England, seemed to have reduced its antagonists to silence, except for a few obscure mutterings, which no one took very seriously. Those halcyon days are gone, and now it is Idealism, or at any rate that form of it advocated by Mr. Bradley with the powerful support of Mr. Bosanquet, which is on its defence. Not only has Absolutism been subjected to the vigorous assaults of the late Pofessor James, but even less determined opponents are disposed to regard Mr. Bradley as the leader of a forlorn hope, however they may admire his subtlety, resource in defence, and "single-minded devotion to philosophy." Realism now has the floor, and no one, not even Mr. Bertrand Russell, has done more to commend it to English readers than Professor Alexander. I am well aware that

> "'Tis dangerous when the baser nature comes
> Between the pass and fell incensèd points
> Of mighty opposites";

but perhaps one who cannot accept without reservations either Mr. Bradley's Absolutism or Professor Alexander's Realism may do something to "redd the marches."

In his stimulating volumes on *Space, Time, and Deity*, Mr. Alexander does not long leave us in doubt that for him the secret of a true philosophy lies in realising that the universe presents itself to us as, and in fact is, a differentiation of one fundamental "stuff" which he calls Space-Time. Starting from this conception, he goes on to argue that to suppose reality to be spaceless and timeless, as Mr. Bradley does, is to make all knowledge

impossible. He further maintains that this spatial and temporal world is not in any sense constituted by mind, but is only revealed to mind. And mind, again, does not differ from other modes of existence, its only distinction being that it is a much more complex object than inorganic things or organised bodies. The various conceptions or categories by which we characterise the real world all presuppose the absolute reality of Space-Time. Finally, Mr. Alexander claims that on this basis he can establish the essential truths of religion. The old proofs of the existence and nature of God are no doubt fallacious, but the religious sentiment points to something higher than mind, which he calls Deity. It is true that as mind is the highest thing we know, we cannot actually know Deity, but we can represent it truly to ourselves by analogy.

Professor Alexander is quite aware of the revolutionary character of his philosophy, and seeks to placate the Absolutist by declaring, sadly but firmly, that, like Luther at Erfurt, he "could do no otherwise." The conclusions of his early teachers he is forced to reject, but he "is all the more anxious not to overestimate differences from a school of thought in which he was himself bred."[1] It will therefore be of interest to see how far that which Mr. Alexander rejects is identical with that which Mr. Bradley affirms.

Speaking for myself, I must admit that the "Introduction" to his exposition of Realism produces in me a very mixed feeling. I hardly feel as if he were doing perfect justice to Absolutism. He represents it as maintaining that Reality is "Experience and penetrated with mind, lives in a medium of mind, and whatever it is ultimately, is at any rate spirit."[2]

Now, so far as mere phrasing goes, this characterization of Absolutism seems at first sight fair enough, but we all know that words may "palter with us in a double sense." When Reality is said to be "penetrated with mind," does this mean that it is constituted by the mind of this or that man, or that in the mind of this or that man there is a faculty or power by means of which it is able to comprehend the nature of the world as presented in each individual's experience? The former of these interpretations Mr. Bradley would certainly reject; the latter he would, I should

[1] *Space, Time and Deity*, I, 7.

[2] *Ibid.*, I, 7.

say, accept and insist upon. I am not aware that anywhere in his two portly volumes Professor Alexander shows a proper realisation of the fundamental difference of the two interpretations. To say that my mind creates the world of my experience is sheer nonsense, and certainly would be repudiated by Absolutists; but it is a very different thing to say, as I understand them to do, that without intelligence as exercised by me and other men there would be no way of comprehending reality at all.

The essence of Absolutism, Mr. Alexander says, "consists not so much in its idealism as in its faith that the truth is the whole, in comparison with which all finites are incomplete and therefore false. With the omission of the concluding phrase, 'and therefore false,' the proposition might be accepted by other doctrines." [1]

Will it be regarded as mere "logic-chopping" if I say that this way of stating the doctrine of Absolutism seems to me to suggest a wrong interpretation of its attitude? I think an unwary reader would certainly infer that Idealism is one thing and the "faith that the truth is the whole" is another thing, and that one might reject the former and still hold to the latter. Now, Professor Alexander of course knows that neither Mr. Bradley nor Mr. Bosanquet would admit for a moment that their form of Idealism is separable from their firm conviction that "the truth is the whole." For them Idealism is fundamentally the doctrine that the true and real is, and can only be, the whole. It is, on the Absolutist view, the main tenet of a sound Idealism that, while our ordinary and scientific knowledge is beyond question when regarded as a stage in the ascent to absolute truth, it is not true if it claims to be an account of the ultimate nature of reality. This is not to my mind a mere matter of words: it is the whole question of the nature of knowledge, truth, and reality. And when Professor Alexander adds that "in comparison with the whole all finites are incomplete and therefore false," he puts the matter in a way that the absolutist would certainly regard as unfair. It is not "false," in any ordinary sense, to say that a chair is a chair, and a mountain a mountain: the "falsity" of these assertions consists in assuming that a chair or a mountain is independent of "the whole"—which is a very different thing.

[1] *Ibid.*, I, 7.

The contrast of Absolutism and of Realism as expounded by Professor Alexander is nowhere more marked than in their different conceptions of the universal. The so-called "concrete universal" of Idealism, he says, is in fact not a universal but a universe. The 'universal' has neither the form of a world nor of a so-called class, but of a plan or law. "The test of universality," says Mr. Bosanquet, "is not the number of subjects which share a common predicate, but rather than this the number of predicates that can be attached to a single subject." Now, to say that this logical form is, as Mr. Bosanquet maintains, "the key to all sound philosophy" is, says Professor Alexander, to "combine into one two distinct notions. To say that the union of different features into a plan or law is realised with modifications in individual instances is true; but it is mere confusion to say that such a plan is a universe." [1]

This criticism hardly does justice to the doctrine which Mr. Bosanquet has tried to establish in his *Principle of Individuality and Value*. The whole question turns upon the true conception of the infinite. The argument is that in the strict sense there is only *one* universal, and as a consequence that what in a less absolute sense we call popularly a "world" or "cosmos" is only a universal in so far as it embodies the same principle as is completely and fully expressed in the true or absolute universal. The objection that there must on this view be an infinity of microcosms or finite systems is based, Mr. Bosanquet argues, upon the assumption, advocated by Mr. Alexander and others, that Space and Time are final determinations of reality, instead of being, as they are, "appearances," that is, inadequate modes of determining reality as it is in itself. The insistence on a "principle" instead of a "plan" marks the whole difference between Idealism and Realism. There is nothing absolute in a plan; in a principle, properly understood, there is.

The fundamental distinction between Absolutism and Realism is not in regard to the features presented to us in our ordinary experience, but in regard to the value to be attached to those features. For both Absolutist and Realist the world of our ordinary experience is an assemblage of objects and events connected causally with one another; and in this world are to be found, not

[1] *Ibid.*, I, 233–234.

merely extra-organic things but organisms, including our bodies and minds. Both, again, refuse to consign the so-called secondary qualities, or the tertiary qualities of beauty and ugliness, moral and religious feelings, and universal conceptions, to the subjective world of mere ideas. Subjective Idealism, or "Solipsism," as Mr. Bradley prefers to call it, is for both an utterly untenable theory. The distinction between Professor Alexander and Mr. Bradley lies in the different interpretation given to this ordinary world. For Professor Alexander a sound philosophy not only starts from the world of objects in space and time, but, though it is greatly extended and rectified by thought, it never leaves that world; while Mr. Bradley regards this ordinary world as not absolutely real and true, but only real and true as being the only world directly disclosed to us. Beyond this world, Mr. Alexander maintains, there is nothing of which we have knowledge; whereas for Mr. Bradley a world which is characterised as spatial and temporal cannot be the real world, but only the manner in which we are compelled to regard the world as it presents itself within our finite experience.

The starting point of Mr. Alexander's philosophy, then, is the world of our ordinary experience, the world as spread out in space and exhibiting changes in time. Since this world exists in its own right, it cannot in any sense be constituted by the mind, but is only revealed to the mind. The foundation from which we start and within which we always remain is that of Space in its necessary relation to Time. The real world is not Space by itself or Time by itself (these are distinctions within a whole), but Space in connection with Time, and Time in connection with Space.

Absolutism follows a different path. It denies that knowledge starts from the apprehension of separate things or qualities, maintaining that what we call things or qualities have no reality of their own, but have being only in the whole. Mind is therefore conceived, not as an object present along with other objects, but as the organ by means of which the true nature of the universe is revealed to us. In the human mind, as in other and higher finite beings, if there be such, there is involved the same principle as is manifested in the universe. This principle is not presented explicitly in immediate experience, just because it is the presup-

position without which there would be no experience. That which is thus presupposed in every experience is, of course, incapable of being "proved" in the ordinary sense of the term. It is beyond proof, because it is the precondition of all proof. In a sense, therefore, the 'universe' has for us no definite content, but only because it contains within itself all possible content. Before explicit consciousness the unity of all things is only implied; but when consciousness supervenes, this unity is broken up, and things are separated into qualities and relations, a separation which is never overcome, but which yet can never give satisfaction to our insatiable demand for completeness.

Realism, at least as expounded by Professor Alexander, does not deny, but affirms, that the universe is one; what it denies is that this unity is incompatible with its existence in space and time. Just as the Absolutist always carries with him the idea of a unity beyond the limits of space and time, so the Realist never forgets that Space-Time is the foundation and presupposition of all reality.[1]

In dealing with physical extension, Professor Alexander argues that extension and duration are experienced by us as continuous, so that their parts are not presented as having a separate existence. Space and time are, in the first instance, apprehended like other things, not indeed *by* the senses, but *through* the senses. What is so presented, it is true, is only finite spaces and times; but no finite space or time is ever experienced as isolated from the surrounding space or time, into which it insensibly flows. As sensibly continuous or uninterrupted, no single space or time is complete in itself, but is a mere fragment of the whole.

It is on the basis of this immediate sensible apprehension that our knowledge of Space and Time as infinite wholes is built up. Realism does not affirm, and has no need to affirm, that reality is known without the help of conceptions. For the simplest objects of experience are full of ideas. A thing of a certain colour and shape is seen as a man. Half the object is ideal, since it is known only by recognizing what is implied in the thing that we immediately see. Space and Time are only in like case with other experienced things, and to apprehend them we need to use imagi-

[1] Cf. Bosanquet, *Contemporary Philosophy*, 169–170.

nation and conception. Infinite Space and Time are obviously apprehensible only with the help of thought, though they are based upon the continuity of finite spaces and finite times. What we directly experience is not points or instants, but only extents and durations; but we soon discover that there is no limit to the division of an extent or duration, and thus by an act of analytic imagination we construct a point or instant. We must not conclude that these elements are unreal because they are ideal constructions, any more than we imagine that a man's back is unreal because we do not see but only imagine it. The point or instant is an element out of an infinitude of which an extent or duration is made. The infinitude of Space or Time does not mean that we can never reach the end of them. That would be to describe them in terms of our infirmity. Infinite Space and Time are positive, self-contained entities: it is finite spaces or times that are negative and conditioned.[1]

In support of his distinctive doctrine that Space and Time have no existence separate from each other, Professor Alexander argues that they could not be infinite and continuous wholes, made up of points and instants, did they not mutually imply each other. The essence of Time in its purely temporal character is that the past or earlier is over before the later begins. Thus taken by itself Time would be not only devoid of continuity, but it would not even be successive. It is Space which supplies us with the continuity needed to save Time from being a bare "now." On the other hand, Space, taken by itself, in its distinctive character as a whole of co-existence, has no distinction of parts; it is Time that separates it into parts. There is no instant of time without a position in space, and no point of space without an instant of time. Space and Time by themselves are abstractions: what really exists is Space-Time, the infinite continuum of what we may properly call "point-instants," "event-particles," or "pure events."[2]

So far as I am aware Mr. Bradley has taken no notice of the various criticisms of his doctrine scattered through the two volumes of Professor Alexander's book, but it is perfectly certain that had he done so he would have declared the attempted

[1] *Space, Time, and Deity*, I, 42–43.
[2] *Ibid.*, I, 44 ff.

reduction of reality to a matrix of Space-Time to be utterly untenable. For him reality is maintained, as we know, to be superior to all relations. What unites all finite beings to one another is the immanence in them of the Absolute, and therefore the transcendence of relations is the precondition of truth and reality. The necessity of postulating a relationless Absolute he seeks to establish by arguing that the relational method of thought, necessary as it is in our experience, leads to insoluble contradictions. In point of fact we never experience qualities without relations. Nor can we get rid of the difficulty by saying that this way of thought is merely a device by which we are able to distinguish one quality from another; for without relations there are no qualities, and if there are no qualities, nothing can be distinguished from anything else; which makes an end of all knowledge and all reality. The inference drawn from this asserted contradiction by Mr. Bradley is that a relational way of thinking is not the method by which we can comprehend reality, but a mere practical compromise. At one time we are interested in qualities, and we ignore relations; at other times our interest is in relations, and we ignore qualities; but when in philosophy we bring the two together, there is no escape from the conclusion that our ordinary experience is of appearance, not of reality. This does not mean, as Mr. Bradley warns us, that appearances are in no sense real: they have their truth, but that truth is not absolute, but relative.

Space and Time are therefore for him but a special instance of the contradiction involved in the contrast or combination of qualities and relations. Space is either a relation—which it cannot be; or it is a quality or substance—which again it cannot be. It is not a mere relation, for any space must consist of spaces; and as a whole it cannot be a mere relation, for a relation can have no parts. On the other hand, space is nothing but a relation, for any space must consist of parts, these parts of new parts, and so on without end. The same contradiction is found in time. If time is a relation between durationless units, the whole time has no duration; and if time as a whole has duration, the units must also have duration, and are no longer units. The only escape from these perplexities is to admit that Space and Time are appearances.

Professor Alexander, agreeing with Mr. Bradley that reality must be consistent with itself, admits that if Space and Time are contradictory, the self-consistency of reality as we experience it cannot be maintained. He has therefore to show that the contradictions which Mr. Bradley finds in the nature of qualities and relations, and more especially in Space and Time, disappear with a proper comprehension of the nature of contradiction.

Mr. Bradley, he argues, has no proper comprehension of the nature of contradiction. As a mere abstraction, the logical law of contradiction is meaningless.[1] That A is not not-A gets its whole meaning from the fact that we are dealing with experienced reality. It is not contradictory to say that A may be not-A, if you take A in the sense of being anything whatever; but it is contradictory to say that one thing can be another thing —for example, that a circle can be a square. Applying this principle to real events, we can say that it is a contradiction to affirm that an event, A, can be a totally different event, B. A thing which occupies one part of space cannot at the same time occupy a different part of space, because it is the nature of space in its relation to time to admit of only one part of it being occupied at one time. Mr. Bradley, taking the law of contradiction in a perfectly abstract fashion as a mere law of our thinking, has no difficulty in finding any number of contradictions in experienced reality. What he does not see is that Space-Time is the ground upon which we determine what is real and what is unreal. If he were right, the proper conclusion would be, not that the categories are not absolute determinations of reality, but that they have no truth whatever. There are no degrees of truth or reality: a thing is either true or not true. The contradictions which are alleged to beset all our ideas are due to a neglect of the facts of our experience. It is true that Space or Time, taken by itself, is contradictory, but only because there is no such reality as Space without Time or Time without Space. More generally, the supposed contradictions in the nature of qualities and relations are due to the separation of them from each other. There are no relations unless we presuppose qualities. On the other hand,

[1] Bosanquet, expressing the Absolutist theory, denies that there is any "special logical coherence." *Contemporary Philosophy*, 176.

relations must relate, and do not require a fresh relation to effect the relation.

Leaving these subtleties, let us look at the actual character of Space and Time as they present themselves within our experience. Space as we know it is spatio-temporal. The Time which is in Space drives on one space in connection with some other space, and thus secures to it continuity. For the same reason any space breaks up into parts without end because the Time which is in it distinguishes it into parts within the original piece of space; and the infinity of this process, being vital to space, is not the bad infinity which is the counterpart of our helplessness, but the good infinity which is implied in the real nature of the thing. So, if Time be taken apart from Space, it is a mere 'now' and can admit no 'before' and 'after.' But this is to neglect the intrinsic spatiality of Time. Space is of the very being of Time, and sustains Time as it fades into the past or dawns into the future. Space gives Time its continuity and enables it to be a duration or succession.[1] Thus the abstractness of Space and Time, which is the source of the contradictions alleged by Mr. Bradley to beset our experience of them, is shown to be contradictory of their real nature. And now mark the revenge which the universe takes! Thought, by setting up its canon of satisfactoriness to itself, loses its contact with the real world. The 'what' is severed from the 'that,' and thought moves in a fictitious world of its own.[2]

By attributing to Space and Time the power of mutual impregnation Professor Alexander has prepared the way for his peculiar doctrine of mind, as simply one among the various objects experienced, differing from other things only in its greater complexity; and it is hard to avoid the suspicion that this conception of mind it is that leads him to attribute such remarkable powers to Space and Time. The relation of mind to its objects, he tells us, is best understood by looking at it in the same way as we regard any two things in Space and Time—say, a table and a chair. Each of these we regard as a single or individual thing, and similarly we must regard minds as bodies which have acquired the capacity of consciousness. Certainly minds are real, but they

[1] *Space, Time, and Deity*, I, 159–160.

[2] *Ibid.*, I, 260.

have no prerogative reality. A mind exhibits its characteristic quality, say in the act of seeing a table, and the colour of the table is what it sees. Nothing belongs to a mind but the act of perception, memory, or thought. The object apprehended is always non-mental or physical, but so also is the mind as an object. Thus the sole function of a mind is to contemplate what is there independently of its activity. One mind may apprehend an object more completely than another, but no mind can apprehend what is not there independently of it. If it is asked why, if the mind has nothing to do with the nature of things, objects seem so different to different minds, Professor Alexander answers that the various minds "select" different elements of the real object, but they always agree in regarding the object as a thing in Space and Time.[1]

One cannot but admire the remarkable ingenuity displayed by Professor Alexander in his attempted derivation of co-existent spaces from Time, and of enduring times from Space. It does look, as Mr. Broad says, as if Space and Time were trying, like the inhabitants of the Scilly Islands, "to gain a precarious living by taking in each other's washing."[2] Mr. Alexander makes a somewhat free use of metaphors, and even in one passage "personifies" Time and Space. Space, we are to understand, is the pure abstraction of co-existence, but Time is necessary to give it concreteness. On the other hand, Time taken abstractly is pure succession. How, one naturally asks, can two pure abstractions make each other concrete? Only, I should say, by ceasing to be pure abstractions. In that case Space will be the conception of every part of it as co-existing, and will not require Time to give it concreteness. On the other hand, if Time is pure succession, it cannot impart even simultaneity to the parts of Space, not to speak of co-existence. In short, the asserted fecundation of each by the other is simply another way of getting rid of the constitutive power of mind.

Mr. Alexander accuses Mr. Bradley of basing his so-called "contradictions" in the nature of Space and Time on mere abstractions. Granting the validity of this charge, has not Mr.

[1] On the "selective" power of mind and body, see Broad, *Scientific Thought*, 529 ff., Stout, *Mind*, XXXI, 385 ff.

[2] *Mind*, XXX, 36.

Alexander been guilty of a similar abstraction when he actually supposes that all sensible things might be banished from the universe, while Space-Time cannot be banished? No doubt Kant, to whom Mr. Alexander refers, says something like this; but, as I read him, he did not mean to say that *all* things might be absent while Space and Time remained, but that *any given thing* might be supposed absent, while we cannot have a world of experience at all which is not determined as spatial and temporal. If Mr. Alexander answers that he has as good a right as Kant to set up this hypothesis of a world of pure Space and Time, I should answer that in my opinion he has not, because Kant held to the constitutive power of the mind, which Mr. Alexander emphatically denies. Hence it is that he speaks of Time as "restless," which seems to me meaningless, for on his own showing Time is a series of discrete moments, each having no connection with either a "before" or an "after." What he calls the "restlessness of Time" is simply the impossibility of accepting pure succession as a true statement of the character of the universe. We have no experience of either Space or Time, or for that matter of anything else, except as distinctions within one universe, and if there is not one universe, then there are no such valid distinctions as those of Space and Time. Nor does experience lend any support to Professor Alexander's assertion that we experience Space and Time just as we experience other things. What we experience is a world of distinguishable objects, which among other attributes have those of extension and duration. We do not directly experience abstract space or abstract time, and if we frame conceptions of Space and Time, as no doubt we do, we do not thereby get rid of the other differences of things.

Space-Time, Mr. Alexander says, is an infinite whole. This is no doubt true, but how it can be established by Realism I fail to see. He tells us that we construct it out of the continuum presented to us through sense. But sense does not give us an infinite continuum; at the most it gives us parts beyond parts, or lesser parts after lesser parts, *ad infinitum*, and neither can be identified with infinitude in the "good" sense of the term. No doubt we can *imagine* limited spaces or times, but the only whole or infinite that we can *think* is the infinite grasped by thought, and this infinite Mr. Alexander cannot fairly make use of, because in his

realistic way of looking at things the only legitimate conclusion is to an indefinite continuum. I do not know whether Mr. Bradley would admit that Space and Time are true infinites or not; I should say that he would not; but at any rate his contention that we live always in the whole demands that we should conceive Space and Time as true infinites. To me at least it seems obvious that if the infinity of Space and Time is denied we cannot have motion, and without motion there can be no physical science, and without physical science no philosophy.

Even, therefore, if Space-Time could be shown on Mr. Alexander's principles to be infinite, it does not follow that all possible forms of being are differentiations of this whole. The sciences, besides dealing with pure motions, speak of forces and energies, and these are certainly not the same thing as pure motions, to which Professor Alexander would reduce all modes of reality.[1] Moreover, though for convenience' sake mathematicians like Newton and Leibniz suppose spaces and times to move, Lagrange has shown that this is but a convenient fiction, which "works" no doubt, but is logically unsound. Nor is there any motion in our thoughts, though Professor Alexander speaks as if there were. The thought of motion is not the motion of thought. It thus seems to me that the Realism of Professor Alexander is full of arbitrary assumptions, which Idealism avoids by recognising that Space and Time, either singly or together—it makes no difference—are simply the barest and most abstract forms of that whole which is the real universe. Mr. Bradley does not affirm that we must wait upon experience to tell us whether there is one universe or not, for we live in the whole and can no more free ourselves from it than we can live without an atmosphere. As he puts it, "We have on the one hand a demand, explicit or otherwise, for an object which is complete. On the other hand, the object which fails to include immediate experience in its content is by the unrest of that experience condemned as defective. We are thus forced to the idea of an object containing the required element, and in this object we find at last theoretical satisfaction and rest." [2]

[1] Whitehead, *The Principles of Natural Science*, p. 2: "Velocity, acceleration, momentum, and kinetic energy . . . are essential physical qualities." Mr. Alexander is of course aware of this. My point is that his doctrine of Space-Time is incompatible with those conceptions.

[2] *Essays*, 161.

The underlying motive which induces Mr. Alexander to attribute to Time and Space the distinctions and relations which the Absolutist attributes to mind in its universal aspect comes to the surface in his contention that a mind differs only in complexity from the other objects presented to us in our experience. No doubt mind "enjoys" its own activity, but its "contemplation" of objects is an instance simply of its "compresence" in the world of Space and Time with those objects. According to circumstances the apprehension of an object takes different forms. The case easiest to understand is sensation. Let B be a patch or point of red and A the mind. B acts causally on the body of A and excites a mental process of vision—call it *a*,—a process which would be different if B were a patch of blue or a hard surface or a sound. But while the processes are different, they agree in having the same identical quality of consciousness.[1] As no finite existent can affect our minds directly without evoking its appropriate conscious act, so no conscious act can exist without its appropriate external object in the spatio-temporal world.[2] The "enjoyment" of the mind's self is at the same time the "contemplation" of an object distinct from it and non-mental. To know anything is to be along with it in Space-Time. Mind, like other finites, is "selective" in the sense that it singles out for its special reference the object it is "compresent" with.[3] It is only so far as we recognise ourselves as part of the one whole, "enjoyed" in a smaller part, "contemplated" for the rest, that our vague sense arises of our finitude, our sense of stretching out in "enjoyment" beyond our limited portion of Space-Time; only so far, that is, as our "enjoyed" space-time is realised as part of and continuous with the whole of "contemplated" Space-Time.[4]

The essential feature in this view is that the *whole* of Space-Time is "contemplated." To which the Absolutist would object that a mind which is in no way different from other finites, and is located within the body, must be a limited object, distinct and separate from other objects, and therefore incapable of conceiving itself as a part of the total Space-Time. Mr. Alexander's view of mind, as I have already maintained, overlooks the identity of all

[1] *Space, Time, and Deity*, II, 81–82.
[2] *Ibid.*, II, 85.
[3] *Ibid.*, II, 100.
[4] *Ibid.*, II, 101.

minds in their essential nature. It is true that reflective thought cannot make or alter in the least the nature of the universe. It is, I should say, for some such reason that Mr. Bosanquet, in his little treatise on *Mind and its Objects*, says (p. 27): "I should compare my consciousness to an atmosphere, not to a thing at all. Its nature is to include. The nature of its objects is to be included. . . . I never seem to think in the form, 'My mind is here, and the tree is there.' Mind takes itself *ab initio* as a world, not as an object in a world."

When he comes to deal with the philosophy of religion, Professor Alexander claims to be still basing his conclusions upon the data of experience. It is idle, he argues, to hope that by defining God in conceptual terms we can establish the connection between the Being so defined and the rest of our experience. Within the all-embracing "stuff" of Space-Time the universe exhibits the "emergence" in time of successive levels of finite existences, the highest of which is known to us as mind or consciousness. Now Deity, Professor Alexander tells us, is the next higher empirical quality. As Time is infinite, the redistribution of moments of Time among points of Space cannot be regarded as ceasing with the emergence of those finite configurations of Space-Time which carry the empirical quality of mind. There is a nisus in Space-Time which will bear them forward to some higher level of existence. Deity is the next higher quality to mind which the universe is engaged in bringing to birth. True, we cannot know what this quality is. "Our human altars still are raised to the Unknown God." But we can represent Deity by analogy.

This unique theodicy, Mr. Alexander tells us, he believes to be the true justification of what the religious sentiment has always been feeling after. To my mind it has all the defects of Mr. Bradley's Absolute, besides its defect of principle. To begin with, while dogmatically affirming that the universe must be in Space-Time, it yet tells us that beyond all that we know, or indeed can know, lies Deity, which admittedly we do not know. How is it possible to affirm the existence of that which is incapable of being defined? Mr. Alexander's answer is that just as life is beyond matter, and mind beyond life, so there must be something beyond mind. But surely this leads to an infinite series, and an infinite series, as he elsewhere admits, takes us nowhere. More-

over, if there is a Deity beyond mind, why should it be in Space-Time? It does not fall within our experience, and I submit that what is beyond all experience is nothing at all, or if it is, nothing that we can in any way define. "Time," says Professor Alexander, "is the soul of its Space, or performs towards it the office of soul to its equivalent body or brain." This is to put us off with a misleading metaphor. Time, even with the help of Space, is no more than a series of events, from which by no legitimate process can we extract unity. Similarly, Time is not, as Mr. Alexander avers it is, "the principle of growth," for growth is not the same thing as a series of events. Nor is there any "nisus" in Time, for the same reason; and therefore it cannot bear its "creatures" (it has no "creatures") forward through matter, life, and mind "to some higher level of existence."[1] In short, I can see nothing in all this but a futile attempt to make Time do the work which only mind or universal intelligence is fitted to perform.

The Absolute of Mr. Bradley bears a superficial resemblance to Professor Alexander's Unknown God, but it is reached in an entirely different way. Since for him all our ordinary experience is relational, he cannot admit that we are capable of knowing *what* the nature of the universe as a whole is. The conception of God as a single being, or as a Person, or as the Creator of the world, seems to him philosophically indefensible. To be a Person, he maintains, is to be a finite; but if he is pressed, he will say that if not a Person, God is at least something higher. In the end Mr. Bradley, like Professor Alexander, falls back upon religious feeling which, he affirms, does not require us to affirm personality of God.[2] It would be hazardous and futile to attempt to criticise this conclusion at the close of an article only intended to make clear the contrast in principle and method exhibited by the exponents of Realism and Absolutism, and I will only say that if it is impossible to maintain the unity of the universe except by denying the infinite perfection of God, I fail to see how there can be any philosophical defence of the religious consciousness.

JOHN WATSON.

QUEEN'S UNIVERSITY,
KINGSTON, CANADA.

[1] *Space, Time, and Deity*, II, 345–346.

[2] *Essays*, Chap. XV.

THE PHILOSOPHY OF CUDWORTH.

IN the opening paragraph of his brief but interesting account of Cudworth's philosophy, in his *Types of Ethical Theory*, Dr. Martineau says: "There is a singular contrast between the calm, contemplative philosophy of Cudworth and the fierce contentions of his time. Born at a country Rectory (Aller, Somerset) in 1617, the year of Raleigh's execution, and dying in 1688, the year of James the Second's abdication, he spans, by his term of life, the whole period of the Stuart troubles and the Commonwealth: yet his writings might have been produced in a lonely and silent monastery, instead of amid the rage of factions and the reverberation of the Naseby guns." [1] The seeming paradox may itself suggest a partial explanation, for a period of almost unexampled political, social, and spiritual unrest might well remind a disciple of Plato of his master's vision of a time when philosophers should be kings and kings philosophers, but in another country, not in his native land. Be that as it may, the peculiar and rather quaint detachment of Cudworth and the lesser members of the group of so-called 'Cambridge Platonists' from the general trend of the thought of their time doubtless kept them from exerting the influence that was presumably expected by their contemporaries. And the loss was by no means merely their own. In Cudworth, at any rate, in spite of the mystical tendency which he shared with the school to which he belonged, and the further handicap of an unwieldy mass of erudition of a singularly inaccurate kind, we find what is lamentably lacking in the English intellectualists of the immediately succeeding generations, a real grasp of certain fundamental metaphysical problems, which were destined to be worked out into what we now regard as their traditional form by the German idealists more than a century later.

But, even aside from the singularly unworldly, not to say otherworldly, tendency of Cudworth's thought, it seems highly probable that his influence would have been greater, and this to the decided advantage of English intellectualism, had it not been for the long delayed publication of his *Treatise concerning Eternal and*

[1] Vol. II, p. 427.

Immutable Morality. It will be remembered that his once famous *True Intellectual System of the Universe* was published in 1678, ten years before his death; while it was not until 1731 that the unfinished *Eternal and Immutable Morality* was published, with a preface by Dr. Edward Chandler, Bishop of Durham, somewhat over-emphasizing its theological bearings. In the meantime, Clarke and Wollaston, not to mention others representing the intellectualistic tradition, had published, while Shaftesbury, Hutcheson, and Butler, each in his own way, had given a distinctly different trend to English ethical philosophy. In fact, in the same year that the *Immutable Morality* was published there also appeared a modest anonymous 'Preliminary Dissertation' (now known to have been written by John Gay),—prefixed to Law's translation of King's *Essay on the Origin of Evil*,—which was not only the first clear and unambiguous statement of the doctrine of so-called 'theological utilitarianism,'[1] destined to become the popular ethical theory in little more than a generation, but which also suggested the particular form of the theory of the 'association of ideas' that was soon to be developed by the British 'associationists' and made the theoretical foundation of their treatment of the problems of ethics and of philosophy in general. Of the really prominent British intellectualists, therefore, Richard Price alone, whose *Review of the Principal Questions in Morals* was published in 1758, wrote with Cudworth's *Treatise concerning Eternal and Immutable Morality* before him, and by that time intellectualism, though doubtless appealing still to many conservative minds, had long ceased to be the dominant tendency among constructive writers on ethics in Great Britain. Price's *Review* was a perfectly respectable performance, not uninteresting as showing that by that time the logic of intellectualism had finally come to be better understood than had been the case in its palmy days; but, in reading the volume, one almost inevitably feels that it represents a 'lost cause,' and that ethical rationalism would never flourish again in the English-speaking world until a little metaphysics, for better or for worse, had been infused once more into moral theory.

[1] The earlier form of utilitarianism, basing upon the egoistic theory of the moral motive and assuming the necessity of rewards and punishments after death, in order to vindicate the conception of 'complete obligation,'—obligation being, as Gay expressed it, "the necessity of doing or omitting any action in order to be happy."

But, it may be objected, Cudworth's *True Intellectual System of the Universe* had been well known to the learned world all this time, and this huge volume contains practically all that Cudworth had to say on the subject of philosophy; for it must be admitted that, while the *Immutable Morality* was doubtless intended to apply the principles of his philosophy to the solution of the problems of morality, aside from the ethical introduction it really consists of a briefer statement of the author's metaphysics than the earlier work gave, leaving the systematic application to ethics still to be made. This is perfectly true, but it leaves the essence of the matter untouched. If Cudworth had deliberately planned to make his *Intellectual System* ineffective, he could have hardly succeeded better. Much the greater part of the huge volume consists of a mass of undigested erudition that seriously interferes with the reader's attempt to follow the author's too often tortuous argument, while the constant emphasis upon the theological aspect of the various problems considered gives one the grotesque impression that one is following the course of a gigantic imaginary heresy trial, in which the ancient philosophers are passed in review, not with the primary intention of expounding their systems, but rather with a view to ascertaining, if possible, what would have been their answers to certain test questions, not, to be sure, of Christian theology, but of a philosophical theism to which a liberal Christian theologian might subscribe. Those who may happen to have examined the first edition of the *Intellectual System* are not likely to forget the quaint engraved frontispiece, representing three 'theists' (so labeled) on one side of the altar of 'religion,' confronted with three 'atheists' on the other side. It may also be remembered that Pythagoras, not Socrates or Aristotle, represented as his companions, is the spokesman of the 'theists,' while Epicurus, with Strato behind and Anaximander standing gloomily in front with head downcast, is attempting to utter some last word in favor of the 'atheists.' Lest the reader should fail to grasp the one-sided character of the debate, there is a laurel wreath marked 'victory' hung above the 'theists,' with a corresponding one, loosely bound or unbound, hung above the 'atheists,' marked 'defeat.' And yet Cudworth was himself, in spirit, one of the truly liberal as well as deeply

religious men of his generation. Thus did he succeed in misrepresenting himself.

Now the *Treatise concerning Eternal and Immutable Morality*, while by no means free from the serious defects of the *True Intellectual System of the Universe*, is at least a great improvement, for it is at once much more consecutive in treatment and decidedly less theological in tone. In short, in this revision, if we may call it such, Cudworth has succeeded, at least in part, in extricating his philosophical argument from the tangle in which he had originally left it. Moreover, as already mentioned, it must be remembered that, in spite of the different titles of the two works, the ground actually covered is substantially the same, for the more specific applications of the author's philosophical principles to ethical theory remain to be made, as only the theoretical portion was completed. This being the case, I shall make no apology for taking the *Immutable Morality* instead of the *Intellectual System* as the basis for the following exposition, though the original work will always be kept in mind.[1]

While we shall be principally concerned with the metaphysical foundations of Cudworth's system, it will be well to notice first the gist of Book I of the *Treatise concerning Eternal and Immutable Morality*, which may be taken as a somewhat extended argument for the necessity of a metaphysic of ethics. There were two features of the political and ethical philosophy of Hobbes that could hardly fail to prove obnoxious to his more conservative contemporaries: (1) his view that man was by nature anti-social; and (2) his apparent contention that moral distinctions existed only as they were defined and enforced by the state. Both of these positions could plausibly be traced to Hobbes's denial of any ultimate faculty of 'right reason' in man, and Cudworth is almost wholly concerned to refute what he conceives to be Hobbes's view that morality can be made and unmade by the

[1] So far as I am aware, no question has ever been raised as to the perfect authenticity of the *Immutable Morality*. In his Preface, Bishop Chandler says: "We are not certain that this treatise is quite so perfect as the author designed it: but it appears from the MS. that he transcribed the best part of it with his own hand, as if it was speedily to have been sent to the press." It is unfortunate, of course, that the treatise was not finished, but it is to be feared that Cudworth's final revision would not have added much to its value, as the original edition of the *Intellectual System* was very inaccurately printed.

arbitrary fiat of the state. As against this view, he holds that man is above all things a rational being, a partaker, in however humble a way, in the Divine Intelligence, and that moral distinctions exist in the immutable 'essences' of things.

One's first impression of the *Treatise concerning Eternal and Immutable Morality*, as of the *True Intellectual System of the Universe*, is something approaching bewilderment at the author's lavish display of classical learning, albeit of the wholly uncritical kind. As examples of 'pretended philosophers' who have held to the arbitrary character of morality, Protagoras, Polus, Callicles, Thrasymachus, and Glauco, as represented in the Platonic dialogues, are cited; also Archelaus, Socrates's master, on the authority of Diogenes Laertius, and Democritus, Aristippus, and Anaxarchus; and again Pyrrho, father of the sceptics. For example, Democritus, on the authority of Diogenes Laertius, is made practically to say: Things accounted just or unjust are all factitious or artificial things; nothing is real or natural but atoms and vacuum. Pyrrho, again, is supposed to have held that "there is nothing good or shameful, just or unjust, . . . in truth, but that men do all things according to law or custom."[1] Epicurus, "the reviver of the Democritical philosophy," is quoted to the effect that justice and injustice are of human origin, arising wholly from mutual pacts and covenants of men, made for their own convenience and utility. Gassendi, "the late compiler of the Epicurean system," is quoted to practically the same effect; and, finally, some particularly obnoxious passages are quoted from the arch-enemy, Hobbes himself.

But this does not exhaust the list of those who contend for the arbitrary character of morality. As the author says: "Certain it is that divers modern theologers do not only seriously, but zealously, contend in like manner, that there is nothing absolutely, intrinsically, and naturally good and evil, just and unjust, antecedent to any positive command or prohibition of God; but that the arbitrary will and pleasure of God . . . is the first and only rule and measure thereof." Occam was the first to maintain this position, but he was quickly followed by

[1] Bk. I, ch. i, § 2.—See edition of Cudworth's *Intellectual System* and *Immutable Morality*, edited by John Harrison, London, 1845. Vol. III, pp. 526 ff. The following page references will be to this edition.

others. The doctrine is now chiefly advanced and promoted by those who "think nothing so essential to the Deity as uncontrolled power and arbitrary will." The logical consequences of this doctrine, according to Cudworth, are such as these: that to love God is by nature indifferent and morally good only because commanded by God; that to prohibit the love of God is not inconsistent with the nature of God, but only with his free will, etc.

Since, then, there are both philosophers and 'theologers' who deny that things are good or evil 'by nature,' Cudworth proposes to demonstrate that, if there be anything at all good or evil, just or unjust, there must of necessity be something naturally and immutably good and just. Two questions immediately arise, when we attempt to get at Cudworth's real position. (1) What does the philosopher understand to lie in the divine power and what not? And (2) what, more exactly, does he mean by the 'essential natures' of things, whether thought of in terms of realities or of values? Perhaps the two questions may be answered provisionally together. According to Cudworth, God's will is the 'efficient' cause of all things, yet not the 'formal' cause of anything other than itself. In other words, God may bring into being or annihilate as he pleases; but if a thing is to exist, it must exist thus and not otherwise, so far as essential relations are concerned.[1] Sometimes the author seems to be dealing in verbal quibbles, as when he says that a thing must be white by whiteness, black by blackness, etc.; but his thought is perhaps best expressed when he says, for example, that Omnipotence itself cannot by mere will make a body triangular "without having the nature and properties of a triangle in it, *i.e.*, without having three angles equal to two right ones."[2] But if the nature of the triangle depends, not upon the arbitrary choice of God, but upon a certain eternal and immutable idea in the mind of God, the same must be said of just and unjust, good and evil, etc. They are what they are by nature; and their natures are in necessary accordance with what, for the time at least, we may

[1] This mainly theological way of putting the matter reminds one of Leibniz's corresponding procedure in some of his more popular essays. For both Cudworth and Leibniz, this position must be regarded as provisional.

[2] Bk. I, ch. ii, § 3; p. 531.

regard simply as certain eternal types or patterns in the mind of God. As regards the relation between our immutable and acquired obligations, we may put the case thus. Some things are, once for all, right or wrong, just or unjust, etc. For example, it is right to keep a promise, wrong to break one. But, as a result of some voluntary action, either our own or that of another, that which was formerly indifferent may acquire "a new relation to the intellectual nature." For example, whether we do a thing or leave it undone may be morally indifferent in the first instance, but it is no longer so after we have promised to do it. And so it is with regard to the commands of the civil powers. The supreme power of the state, so long as it is established upon the basis of natural justice and commands nothing that is essentially wrong, may very well make binding actions which, under ordinary circumstances, would be indifferent. Such obligation is mutable, depending upon the making or unmaking of human laws; at the same time, we have seen that it implies, and ultimately depends upon, that which is immutable.

Descartes, indeed, in his answer to the sixth set of objections to his *Meditations*, argues that not only moral distinctions, but also mathematical truths, depend upon the arbitrary will of God; and he concludes his essential argument by saying: "And thus the greatest indifference in God is the greatest argument of his omnipotence."[1] But it is sheer nonsense, Cudworth contends, to hold that mathematical truths are such only because God willed that they should be so. "That which implies a contradiction is a non-entity, and therefore cannot be the object of divine power." And this is far from being a merely verbal dispute; if essences themselves depended upon the arbitrary power of God, there could be no such thing as science or demonstration. The truth of a mathematical or metaphysical proposition, *e.g.*, could be known only by a special revelation from God. Indeed, truth and falsehood would be only names, for even in God himself knowledge "would depend upon the mutability of a will in him essentially indifferent and undetermined."[2] Now this insistence upon the arbitrary will of God, at the expense of his intellect, is wholly gratuitous; for the wisdom of God is surely

[1] Bk. I, ch. iii, § 2; p. 537.
[2] Bk. I, ch. iii, § 6; p. 539.

as much God as the will of God. Moreover, it is the perfection of will as such to be guided and determined by wisdom and truth.

The essential thing, then, is intellect, not arbitrary will, truth, not arbitrary decrees, whether made by God or man. But what is the relation between human and divine knowledge; and in how far can human knowledge be said to approach absolute truth? After his ethical introduction, Cudworth is at last ready to indicate the general character of his metaphysical solution. He says: "Now all the knowledge and wisdom that is in creatures, whether angels or men, is nothing else but a participation of that one eternal, immutable, increated wisdom of God, or several signatures of that one archetypal seal, or like so many multiplied reflections of one and the same face, made in several glasses, whereof some are clearer, some obscurer, some standing nearer, some further off." The language used is, of course, highly figurative; what the author means, briefly expressed, seems to be this. All truths are in the mind of God; they are, *qua* truths, immutable and eternal. Man has a knowledge of truth only so far as he participates, no matter to how slight a degree, in the divine intellectual nature. When the knowledge of particular human minds is compared by Cudworth to divers reflections of one face, the simile is ambiguous, if not misleading. The doctrine is closely analogous to that of the Platonic 'ideas,' which being the case, it will readily be seen that there can be only one idea or essence of a kind. Now all these essences or ideas are ultimately existent in the mind of God; and human knowledge, in so far as it is indeed knowledge of the truth, is conversant with these same ideas. In a word, in so far as we know, in the proper sense of the word, we quite literally partake of the divine intellectual nature, according to Cudworth. The specific arguments for this position will be considered later, when we come to examine the author's theory of knowledge.

This might lead one to suppose that, according to Cudworth, infinite wisdom is the highest attribute of God. He attempts to guard against the appearance of ultra-rationalism, however, by the use of a peculiar figure of speech. Referring to the relation between the three primary attributes of God, he says that the

nature of God may be compared to "the mystical or enigmatical representation of an infinite circle," whose inmost centre is simple goodness, whose rays and expanded area are all-comprehending and immutable wisdom, and whose circumference is omnipotent will and activity, by which everything without God is brought into existence.[1]

Book II of the *Immutable Morality* is mainly occupied with a somewhat peculiar analysis and criticism of the doctrine of Protagoras. Referring to this, Sidgwick remarks, in his *Outlines of the History of Ethics*, that Cudworth "misspends some labor in proving that Protagoras—not Democritus—is the author of Atomism as well as Relativism."[2] This, however, is hardly an adequate statement of the case. By reference to the Platonic dialogues, Cudworth shows that atomism dates further back than the time of Protagoras. But that is only the first step,—and here we come to what is easily the most naïve passage in the whole treatise. The author quotes with approval Strabo's remark: "If we may believe Posidonius the Stoic, the doctrine of atoms is ancienter than the time of the Trojan war, and was first invented and delivered by one Moschus, a Sidonian." Sextus Empiricus calls this Moschus a Phœnician. "Now," says Cudworth, "what can be more probable than that this Moschus the Phœnician, that Posidonius speaks of, is the very same person with that Moschus the physiologer, that Jamblichus mentions in the Life of Pythagoras, where he affirms that Pythagoras, living some time at Sidon in Phœnicia, conversed with the prophets that were the successors of Mochus the physiologer, and was instructed by them. . . . And what can be more certain than that both Mochus and Moschus, the Phœnician and philosopher, was no other than Moses, the Jewish Law-giver, as Arverius rightly guesses." Hence, as our author gravely concludes, the atomical philosophy ought, by good rights, to be called 'Moschical' or 'Mosaical.'[3]

The quaintness of the above, which apparently was written in all seriousness, can hardly fail to provoke a smile. But immediately the question arises, Why was Cudworth at such pains to

[1] Bk. I, ch. iii, § 8; p. 540.
[2] P. 170.
[3] Bk. II, ch. iv, § 2; p. 549.

construct a genealogy for the 'atomical philosophy' that might tend to prejudice his more confiding readers strongly in its favor? For obviously atomism was part and parcel of the 'Epicurean philosophy,' which, both in its ancient and its modern form [Hobbes], it was Cudworth's particular concern to contend against. As a matter of fact, while Cudworth, at this stage of his argument, is showing altogether too much of 'the innocence of the dove,' he apparently believes that he has in reserve something of 'the wisdom of the serpent.' Both in the *Intellectual System* and in the *Immutable Mortality* he is disposed to fight his adversaries with their own weapons. Whether or not his point is well taken, he holds that, so far from the mechanical or atomic philosophy playing into the hands of the sensationalist, and so leading to a dangerous relativity in ethics, it rather served as the secure foundation of an 'intellectual' view of the world as far as it went. For what does the atomic philosophy do, if not explain the sensible and fleeting in terms of the intellectual and permanent? Thus atomism, though only the first step, perhaps, is distinctly a step in the right direction. This "old atomical philosophy," then, Cudworth contends, is uncontrovertibly true; but we must not be deceived by the paradoxes that Protagoras and others have attempted to ground upon it. It will hardly escape the modern reader that Cudworth is so preoccupied with the 'intellectual' character of the atomic theory that he fails to recognize that this theory, taken ontologically, as it presumably was by the 'atomists' themselves, would make altogether secondary, or, as we would say, 'epiphenomenal,' the very moral and spiritual values that he is attempting to vindicate. In other words, the 'atomists' seem to have understood their method better than Cudworth did.

As a matter of fact, the arguments that follow have little necessary reference to atomism. The strongest of them—whatever may be thought of its ultimate validity—has a strangely familiar sound. Cudworth says: "But if nothing be absolutely true, but only relatively to him who thinks so, then this very opinion of Protagoras, that nothing was absolutely true, and that man was the measure of all things, was not itself absolutely true, but only seemingly, and relatively to Protagoras; whereas this is asserted

for an absolute truth by him, that nothing is absolutely true." [1] But Cudworth sticks to his original text, and concludes: "Wherefore, the proper and genuine result of this old atomical philosophy, which is the triumph of reason over sense, is nothing else but this, that sense alone is not the criterion or judge of what does really and absolutely exist without us, but that there is a higher and superior intellectual faculty in us that judges of our senses, which discovers what is fallacious and fantastical in them, and pronounces what absolutely is and is not." [2]

Thus far Cudworth's treatment has been mainly critical; now we come to the constructive portion. The remainder of the *Treatise* is devoted to an attempt on the part of the author rigorously to distinguish between sense and knowledge, and to establish, beyond the possibility of a doubt, the existence of absolutely valid knowledge of the immutable 'natures' of things. Book III is devoted to 'Sense' and Book IV to 'Knowledge.'

Let us first consider sense. Now the most obvious characteristic of sense is that it is a 'passion.' First of all, there is a passion in the body of the creature having the sensation, and this bodily passion is nothing other than local motion. But clearly this local motion does not exhaust the phenomenon. Attending the bodily disturbance, there is a state of consciousness, an affection of the soul. Evidently we have something here which the mere propagation of a stimulus in the external world will by no means explain. Now this state of mind, corresponding to the state of the body, is not *mere* passion; but, as Cudworth says, it has "something of active vigor in it." This must be so, he contends, for the ideas, *e.g.*, of heat, light, and colors exist only in us; hence they cannot be impressed upon us from without. At the same time, they are clearly 'passions' on the whole, for they are not elicited from the soul itself, but obtruded upon the soul from without.[3]

It is plain that sensations of sight, hearing, color, etc., differ from "those pure cogitations which are actions of the soul itself."

[1] Bk. II, ch. v, § 2; p. 553.

[2] Bk. II, ch. vi, § 3; p. 555.

[3] It is to be noticed that, when dealing with sense, Cudworth apparently acknowledges a real interaction between the soul and the true external realities, the atoms.

As the author says: "The soul doth not merely know or understand the figure and motions of those corporeal particles, but hath certain confused affections and phantasms within itself, by reason of them." Thus we are prepared for Cudworth's formal definition of sensation. He says: "Sensations, formally considered, are certain passions or affections of the soul fatally connected with some local motion in the body, whereby the soul perceiveth something beside those immediate corporeal motions in the nerves, spirits, or brain."[1] There are three degrees of sensations, beginning with the most subjective: (1) the purely subjective passions of "joy or pleasantness, dulness and sadness," irascible and other inclinations; (2) hunger and thirst, and localized pleasures and pains; (3) passions by virtue of which we are informed of the existence of external, corporeal things. Though these are all equally passions and sensations of the soul, the name 'passion' is ordinarily applied to the first class, and 'sensation' to the two others.

After these preliminaries, Cudworth is ready to explain what he regards as the essential character of sensation, He says: "Now sense, that 'suffers' from external objects, lies as it were prostrate under them, and is overcome by them: wherefore no sense judges either of its own passion or of the passion of any other sense, but judgment or knowledge is the active energy of an unpassionate power in the soul."[2] And he adds: "Sense, therefore, is a certain kind of drowsy and somnolent perception of that passive part of the soul, which is as it were asleep in the body, and acts concretely with it. So Plotinus expresses it."[3] Sensations, then, are 'fatally' determined from without; so long as they remain sensations merely, they contain in themselves a foreign element that is unintelligible. We can comprehend the external only by means of that which is "native and domestic," to use Cudworth's own expression. And this implies not only activity, but what Cudworth calls 'anticipation' in our own minds.

Sense, then, merely offers or presents some object to the mind. By it we have only a slight and superficial perception of the out-

[1] Bk. III, ch. i, § 5; p. 559.
[2] Bk. III, ch. ii, § 1; p. 561.
[3] *Ibid.*, § 4; p. 563.

side and accidental characteristics of a corporeal substance; "just as when a man, looking down out of a window into the street, is said to see men walking in the street, when indeed he perceives nothing but hats and clothes." [1] And this is not from any defect of our senses. Though our sight were so perfect that it could penetrate to the ultimate constituents of things, so far as these could be revealed by sensation, it could not enable us to comprehend the essential nature, *e.g.*, of body, sphericalness, or triangularity. Hence, strictly speaking, bodies themselves are perceived, not by the senses or imagination, but by the understanding alone. The essence of nothing can be understood by the senses looking outward, but by the mind looking inward into itself. "Sense apprehends individual bodies without, by something derived from them, and so *a posteriori*, . . . but knowledge is a comprehension of a thing proleptically, and, as it were, *a priori*." "For knowledge is not a knock or thrust from without, but it consisteth in the awakening and exciting of the inward active powers of the mind." [2]

That sense is not knowledge will further appear from the fact that by sense we do not perceive the things themselves or their absolute natures, but rather have states of consciousness corresponding to the condition of our own bodies. This being the case, we sometimes have sensations when there is no external body whatever corresponding to them. Cudworth says: "A known and approved instance whereof we have in those that, after they had their arms and legs cut off, have been sensible, when they were awake, of a strong and violent pain in their fingers and toes, though they really had no such members. And we have all constant experience of the same in our dreams, which are as true sensations as those which we have when we are awake and when the objects are really existent without us." [3]

We now pass to Book IV, where knowledge is considered. We have already seen that knowledge, as opposed to sense, implies activity and 'anticipation'; but it is necessary now to ask what, more particularly, Cudworth means by 'anticipation.' His own illustration is substantially as follows. Suppose that we recognize

[1] Bk. III, ch. iii, § 3; p. 565.
[2] *Ibid.*, § 5; p. 566.
[3] Bk. III, ch. iv, § 2; p. 571.

a man in a crowd, where all the rest are unknown. The only thing that enables us to distinguish him is that we already have his image in our mind. And, of course, we need not have been looking for him. Perhaps we may not have been thinking of him for years, when suddenly we meet him, and recognition immediately follows. In like manner, when anything external or foreign is presented to the soul, the soul apprehends it by something that is internal and 'domestic.' Moreover, just as we recognize the man that we were not looking for, so we may be said to have 'anticipations' of an indefinite number of things that we have never dreamed of, which will enable us to recognize them when they are presented. This is the true and only allowable sense of the famous Platonic doctrine of 'reminiscence."[1] "Wherefore," Cudworth says, "individual things existing without the soul, are but the secondary objects of knowledge and intellection, which the mind understands not by looking out from itself as sense doth, but by reflecting inwardly upon itself, and comprehending them under those intelligible ideas or rationes, 'reasonings' of its own, which it protrudes from within itself; so that the mind or intellect may well be called (though in another sense than Protagoras meant it) . . . 'the measure of all things.' "[2] The fact that the mind, in knowing, impresses its own forms upon that which it receives from without will explain why it is that, as Aristotle has observed, "'those knowledges which are more abstract and remote from matter, are more accurate,' intelligible, and demonstrable, than those which are conversant about concrete and material things." For example, arithmetic is more accurate than harmonics, geometry than astronomy, etc.

It has been contended by some that we have no ideas, properly speaking, but only 'phantasms' or images. This cannot be the case: for (1) there are many objects of the mind, which we can neither see, feel, smell, or taste, and which never entered the mind by the way of any sense, *e.g.*, justice, equity, duty, etc.; and (2) there are many whole propositions in which there is no single word to which we can be said to have a corresponding image, while it is clear that fancy, in any case, cannot reach to an appre-

[1] Bk. IV, ch. i, § 2; p. 578.

[2] *Ibid.*, § 4; p. 580.

hension of the necessity of the connection of logical terms. Cudworth's view of this matter, briefly expressed, is as follows. When we are thinking of particular sensible or corporeal things, we presumably have more or less clear images before our minds; but even here the images are not the only, or the main, thing. There are always intellectual activities present, by virtue of which we know. But the presence of intellectual factors is more evident in the case of geometrical demonstrations. Here also, to be sure, there presumably will be a particular image, *e.g.*, of a triangle of definite character; but all the time the mathematician is occupied, not with a consideration of this particular image—which very well might be different in some respects—but with his conception of what a triangle in general or a triangle of a particular order means. Otherwise, of course, a demonstration of any kind would be impossible. Now when the objects of thought are not really imageable at all, but rather what Cudworth calls "things understood," we might expect mental images to be lacking altogether; but such is the tendency of the mind to form images, whether relevant or not, that we have "apish imitations, symbolical adumbrations and resemblances of those intellectual cogitations of sensible and corporeal things." Hence comes our fondness for metaphors even in highly abstract reasonings. Sometimes, as in artificial mnemonic systems, we deliberately cater to this fantastic tendency of the mind.

In order to make plain what is to be attributed to knowledge proper, as opposed to sense, in our ordinary cognitive experience, Cudworth proposes that we compare three things: (1) a mirror, (2) a living eye, and (3) the intellect superadded to this latter. From the point of view of mere 'passion,' there is no advantage on the part of the perceiving eye over the mirror. This may be seen from the fact that we perceive an object as well indirectly, through the mirror, as we do directly. But nobody attributes perception to the mirror. What is the difference? So far as mere 'passion' is concerned, they are affected in the same way; but, by virtue of an activity of its own [sense], the mind perceives this external 'affection,'—this and nothing more. It does not properly perceive an object, much less an object in relation to other objects, but is conscious of an 'image,' using this word in

the literal sense. But here the intellect intervenes, and we have the perception of the objects as such, *i.e.*, as standing to each other in definite relations, or anything as elaborate as you please.

As Cudworth observes, this is most easily understood when the object perceived is one of undoubted complexity, *e.g.*, a watch. What is directly presented to the mirror and to the eye is the same,—only an image or succession of images in either case. But the mind does not merely receive images in a passive way; it perceives things in the relations of part and whole, means and end, cause and effect, etc., and comprehends both the purpose of the machine and its actual working. Now if the sentient eye could dispute with the intellect, it would hold that all this was an illusion, for none of these things appear in the image. Are, then, the relations of cause and effect, means and end, etc., subjective? Cudworth naturally is emphatic in maintaining the contrary, though it must be confessed that his argument becomes rather confused at this point. After urging certain considerations that seem at this distance hardly relevant, he attempts to clinch the matter by an argument that is unexpectedly 'pragmatic.' That these notions have the most vital relation to objective reality appears from this; "because art and wisdom are most real things, which beget real effects of the greatest moment and consequence in nature and human life of anything; and yet are conversant about nothing else but only the relations, proportions, aptitudes of things to one another, and to certain ends." [1]

In a word, all things artificial or mechanical involve in themselves that which is not of sense. For example, a palace is not only stone, bricks, mortar, iron, glass, etc.; but, as Cudworth expresses it, "the very essence or formal reason of it is made up of relative or schetical notions, it being a certain disposition of those several materials into a totum." [2] The palace, therefore, has more, not less, reality in it, because it "partakes of art or intellectuality." Further, this is true not only of artificially, but of naturally compounded things, *i.e.*, plants and animals. "For there is nature in all artificial things, and, again, an artifice in all compounded things." The difference consists in the indefinitely greater complexity of that which we call 'natural.' And the same

[1] Bk. IV, ch. ii, § 5; p. 589.

[2] *Ibid.*, § 10; p. 594.

reasoning, according to Cudworth, would hold true of that vast automaton, the material universe, the indwelling harmony of which must be referred to the Divine Mind.

The further arguments, by which Cudworth attempts to deal with the more technical aspects of the problem of knowledge, leave a good deal to be desired in the matter of clearness. The fundamental thought is that knowledge proper can never be received merely from without, but involves thoroughgoing construction from within. When an object is presented, we never stop at the mere image, whatever that may mean, but abstract, now this and now the other aspect of it, always by reference to certain internal standards. Only thus can we be said to comprehend it at all, even for practical purposes. And again, more particularly in the case of geometrical figures, we always have a mental standard,—one of Cudworth's 'anticipations,'—with reference to which we judge not only its exactness, but its significance. What this mental standard is, is not yet clearly stated. Cudworth calls it an 'intelligible idea,' and speaks of it as "being as it were embodied in the phantasm [*i.e.*, the particular attendant image], which alone and in itself is but an incomplete perceptive cogitation of the soul half awakened." [1] By virtue of such universal or abstract notions, the soul, "as it were, looking downward," comprehends individual things. But what are these 'notions'? Cudworth describes them as "pure active energies of the soul." They are, then, modes of activity of the mind itself, and do not correspond to 'innate ideas' in the cruder form of that doctrine. The essential point is: knowledge does not begin with individuals, but rather ends with them. By a curious misconception of the logic of his position, Cudworth holds that, if we knew as God knows, we would know directly by universals.

The question naturally arises: Where do these intelligible natures or essences exist? Not in the individual, external bodies, as we have seen, for these are continually passing away and giving place to something else. Neither are they to be regarded as existing apart from the material object, but also external to the mind, for that also would reduce knowledge to passion and thus do away with its certainty. It is evident that they can exist only in the mind. Yet this does not make them mere figments of the

[1] Bk. IV, ch. iii, § 12; p. 611.

understanding, as we have seen. The mind can call them up or dismiss them, but their natures are immutable and no mental exertion can make them other than they essentially are. But they are also immutable in another sense, for they exist whether one thinks of them or not. For example, the eternal ideas corresponding to all possible kinds of geometrical figures existed long before the time of the invention of geometry or, indeed, before the creation of the (external) world. They are literally eternal, apparently in the sense that they stand outside the time process. Yet, as we have seen, they are often described as essential modes of the activity of the mind itself. Cudworth summarizes his results up to this point in the following words: "Now the plain meaning of all this is nothing else but that there is an eternal wisdom and knowledge in the world, necessarily existing, which was never made, and can never cease to be or be destroyed; or, which is all one, that there is an infinite eternal mind, necessarily existing, that actually comprehends himself, the possibility of all things, and the verities clinging to them. In a word, there is a God, or an omnipotent Being, necessarily existing, who therefore cannot destroy his own being or nature, *i.e.*, his infinite power and wisdom." "For," as the author goes on to say, "the rationes and essences of things are not dead things, like so many statues, images, or pictures hung up somewhere by themselves alone in the world; neither are truths mere sentences and propositions written down with ink upon a book, but they are living things, and nothing but modifications of mind and intellect; and therefore the first intellect is essentially and archetypally all rationes and verities, and all particular created intellects are but derivative participations of it, that are printed by it with the same ectypal signatures upon them."[1] Hence, as Cudworth proceeds to argue, the existence of an infinite and eternal mind is as certain as the existence of these 'essences' or 'natures' of things, which, again, we have seen to be the logical presupposition of all knowledge.

Again, since that which is imperfect must always depend upon that which is perfect (of the same kind), our imperfect human understandings, Cudworth holds, must be "derivative partici-

[1] Bk. IV, ch. iv, § 7; p. 626.

pations of a perfect, infinite, and eternal intellect, in which all the rationes of all things, and all universal verities are always actually comprehended. . . . A sun that never sets, an eye that never winks. Wherefore, though all our knowledge be not stamped or impressed upon our souls from the matter; they are all, as it were, 'ectypal prints' and 'derivative signatures' from one archetypal intellect, that is essentially the rationes of all things and all verities." [1] Moreover, this explains why the conceptions of one mind correspond to those of another, contrary to what we saw to be the case in sensations, where there is always something foreign or occult. As Themistius observes, men could not possibly reason with one another, "if all did not partake of one and the same intellect"; neither could one so readily teach or learn. Hence, also, the unity of all truths, which are not split up by being comprehended by many minds.

So much for necessary postulates; but the question arises: What is the test of truth? How shall we know when our conceptions conform to the eternal and immutable natures or essences of things? From the nature of the case, the standard cannot be external to our minds; the only valid test is clear intelligibility. That which is clearly and distinctly conceived is true; "but," as Cudworth characteristically adds, "that which is false, divine power itself cannot make to be clearly and distinctly understood, because falsehood is a nonentity, and clear conception is an entity: and omnipotence itself cannot make a nonentity to be an entity." [2] Some raise the question whether our faculties be such as to enable us to attain to absolute truth, and are inclined to deny that this is possible. Others derive the certainty of our knowledge from the necessary truthfulness of God. Cudworth evidently has no patience either with the supposed difficulty or with the solution proposed. As regards the appeal to the necessary truthfulness of God, he says: "It is plain that this is nothing but a circle, and makes no progress at all, forasmuch as all the certainty which they have of the existence of God, and of his nature [from that point of view], depends wholly upon the arbitrary make of their faculties, which, for aught they know, may be false." [3] Cudworth bases

[1] Bk. IV, ch. iv, § 11; p. 628.
[2] Bk. IV, ch. v, § 5; p. 635.
[3] *Ibid.*, § 6; p. 635.

his whole argument upon his view that a falsehood is, or involves a nonentity, and holds that, let our faculties be what they may, that which is clearly conceived is necessarily true and represents reality. He admits that we sometimes think we see things clearly and distinctly when we do not, but that does not do away with the reliability of this our only test of truth. In our dreams, *e.g.*, we think that we are awake, but that does not do away with the certainty of our waking experience. The ultimate test, for Cudworth, would seem to be thoroughgoing rationality, as opposed to particular intuitions, which may not always justify the confidence placed upon them.

In the final chapter of the *Immutable Morality*, the author attempts to show, though only indirectly, the relation of the whole preceding argument to his proposed treatment of morality. He says: "Wherefore the result of all that we have hitherto said is this, that the intelligible natures and essences of things are neither arbitrary nor fantastical, that is, neither alterable by any will whatsoever, nor changeable by opinion; and therefore everything is necessarily and immutably to science and knowledge what it is, whether absolutely or relatively, to all minds and intellects in the world. So that, if moral good and evil, just and unjust, signify any reality, either absolute or relative, in the things so denominated, as they must have some certain natures, which are the actions or souls of men, they are neither alterable by mere will or opinion."[1] It was upon this ground, Cudworth argues, that Plato defined a 'law' as "the invention of that which *is*." As was natural, considering the character of Cudworth's metaphysic of ethics, the philosopher holds definitely that our belief in morality must (logically) stand or fall with our belief in God. He says: "I have insisted . . . so largely upon this argument . . . , because it is not possible that there should be any such thing as morality, unless there be a God, that is, an infinite eternal mind that is the first original and source of all things, whose nature is the first rule and exemplar of morality."[2]

It should be clearly recognized, however, that the need of a God for ethics that Cudworth contends for is not the need of common sense. Unlike the immediately succeeding English intellec-

[1] Bk. IV, ch. vi, § 3; p. 640.

[2] *Ibid.*, § 13; p. 645.

tualists, he did not confuse his position by assuming that, though moral obligation rests upon reason alone, in the last resort, it would be ineffective unless reinforced by rewards and punishments after death. Leaving to theology whatever it may accept as its own problems, Cudworth is content to rest his case upon the necessity of postulating an Eternal Consciousness as the ultimate ground of all truths, *among* which are those of morality. In the face of current forms of materialism and the political absolutism of Hobbes, his ethical message was: "The truth shall set you free."

Before considering Cudworth's system as a whole and comparing it with later and more developed idealistic systems, it will be well to examine two interior difficulties or inconsistencies. The first of these is obvious, *i.e.*, Cudworth's apparent adoption of the atomic philosophy as an integral part of his own. This has been mentioned already and we have seen that Cudworth was apparently led to take this position by controversial considerations. Moreover, it is clear enough to any competent modern reader that Cudworth misapprehended the logic of the matter. Certain of his contemporaries and immediate predecessors, adopting the atomic theory in what one might call the ontological sense, had drawn conclusions that seemed to Cudworth utterly subversive of fundamental moral considerations. Since the atoms and their relations to each other were alone regarded as real, in the ultimate sense, everything else, including moral distinctions, assumed the aspect of subjectivity or relative unreality. In other words, sensationalism and relativism seemed to Cudworth to have formed a specious alliance with atomism, which he recognized as (in his sense) an intellectual theory as far as it went, since it explained fleeting sense perceptions in terms of changing relations between the eternal atoms. The temptation was obvious: Why not fight the sensationalists with their own weapons and show them that the atomistic theory was at least a two-edged sword, capable of cutting both ways? But what should have remained, at most, an *argumentum ad hominem*, became, at least in appearance, an integral part of his system. Naturally it presents the appearance of a foreign element that cannot possibly be assimilated without insisting upon the conception of 'degrees of truth and reality' in a way that Cudworth

never attempted and that he might have regarded as dangerous.

Still keeping to this first inconsistency, the philosopher does not escape confusion when he ceases to speak in terms of the atomic theory. He often speaks of matter and mind as if they were distinct substances and yet in some way capable of interacting. So far as his consideration of sense is concerned, there is no special difficulty: the assumption is that there is a real external stimulus and, corresponding to this, an affection of the mind that is to be regarded as involving a certain degree of activity, though of a low order. But this analysis of sensation, though apparently coördinate with the analysis of knowledge, is, in reality, only preliminary to Cudworth's characteristic interpretation of experience. This becomes plain when the author comes to analyze our concrete perceptions of particular objects. To perceive an object in relation to other objects,—and that is what our concrete perceptions practically always amount to,—is a very different thing from becoming conscious of an image, whatever that may mean. Here the relations of whole and part, means and end, cause and effect, etc., are involved. Now all these relations, which alone can give objective validity to our experience, belong to the mind, according to Cudworth; apart from the mind, they are meaningless. This we saw from the supposed objections of the sceptical mirror. What, then, becomes of wholly external reality, whether stated in terms of the atomic philosophy or of matter considered as substance? The logic of the system is plain: Cudworth ought to do away with matter, from the ontological point of view, instead of allowing it to stand as ostensibly coördinate with mind. It might, indeed, be argued with some justice that this is done by implication; but one has to be particularly careful not to overinterpret a system that has not been thoroughly worked out to its logical conclusions.

Before leaving the question of these relations supposed to make for objectivity,—which, it will be remembered, are referred to indiscriminately as logical,—it will be well to notice that they require considerable differentiation. The mere list, confessedly incomplete, is sufficiently suggestive on this point. They are: "cause, effect, means, end, order, proportion, similitude, dissimilitude, equality, inequality, aptitude, inaptitude, symmetry,

asymmetry, whole and part, means and end, and the like." [1] It is only fair to remember that this confusion between the dynamical and the logical points of view was far from being peculiar to Cudworth. In fact, it was, in a sense, part of the deliberate method of one phase of the older rationalism; witness the frequent use that Spinoza makes of the phrase, 'cause *or* reason.'

The second and more serious source of confusion in the system arises from the fact that Cudworth apparently uses 'notions' or 'ideas' in a double sense: (1) as immediate objects of knowledge, (2) as themselves fundamental forms of activity of the mind. When used in the former sense, they are described as 'natures,' 'essences,' 'intelligible ideas,' etc. It seems to be implied that it is only through the medium of these general notions, themselves the *immediate* objects of knowledge, that we can have any certain knowledge, or, indeed, any knowledge at all. In the latter sense, —as modes of activity of the mind, themselves constitutive of the general form of experience,—the 'notions' appear in a rôle very like that of the categories of Kant, except that they are indefinitely numerous and not classified on any logical plan.

As my own view of this matter differs considerably from that of Martineau, I shall quote from his exposition of the system in his *Types of Ethical Theory:* "Cudworth's insistence upon the understanding, as 'an active cognoscitive power' and original source of *a priori* regulative ideas, has induced Dugald Stewart (following the example of Meiners) to hint that Kant may well have been indebted to him for some of his 'leading ideas,' especially for his distinction between the matter of sensible experience, and the factors of thought furnished by the mind itself. The comparison only shows how very superficially even a practiced philosophical critic may read and judge the most exact and severe productions in the history of human thought. The supposed resemblance disappears on the mere mention of two marked differences. (1) With Cudworth, the endowment of Sense supplies no *a priori* elements; with Kant, it gives us Space and Time, as its own forms. (2) With Cudworth, the Understanding's 'intelligible ideas' (*νοήματα*) are themselves its *objects of knowledge*, and constitute the essences of things, and therefore introduce us to the

[1] Bk. IV, ch. ii, § 1; p. 586.

nature of things in themselves: with Kant, they are purely subjective, inherent only in the make of our faculty, so that we cannot help thinking under these categories, but have no right to treat them as valid for reality irrespective of us. Thus, the ideality of human cognition, which the two writers hold in common, was used by Cudworth to prove, by Kant to disprove, the absolute validity of our knowledge: with the one, it was the means of reaching, with the other, the excuse for surrendering, eternal and immutable truth: with the former, it carries us to the Infinite Nature, with the latter, it shuts us up to our own." [1]

The differences that Martineau mentions are doubtless important to keep in mind, but I think that he over-states his case. Let us examine the principal points made in the passage just quoted. (1) That Kant was directly influenced by Cudworth is highly improbable,—though not impossible, as Professor Lovejoy has shown.[2] Leibniz may have been influenced in some degree by the English philosopher, with whose general position, at any rate, he seems to have been acquainted; and one who was on the lookout for possible historical influences might urge, with some plausibility, that Kant might well have been influenced indirectly by Cudworth through Leibniz. But such speculations are of very secondary interest. The history of philosophy, as well as that of scientific discovery, tells of many cases where two or more investigators, working quite independently, have come to very similar results. Indeed, dropping the question as to the possibility of Kant having derived some of his 'important ideas' from Cudworth, it would be folly to claim anything like a close resemblance between the two systems, which are not at all on the same plane, judged by any strict standards. But, conceding all this, I think one may claim the existence of an interesting similarity between the standpoints of the two philosophers, while keeping well within the facts,—a similarity which does not disappear "on the mere mention of" the two "marked differences" to which Martineau refers.

The "distinction between the matter of sensible experience and the factors of thought furnished by the mind itself," which

[1] Vol. II, pp. 442, 443.

[2] *Cf.* "Kant and the English Platonists," in *Essays Philosophical and Psychological in Honor of William James* (1908), p. 280.

Dugald Stewart mentioned, is surely fundamental to the Kantian philosophy, and we have seen that it is equally characteristic of Cudworth's theory of knowledge. In this connection, it is well to remember Cudworth's theory as to the intellectual elements that enter into our perception of concrete external objects. This alone is most significant. Again, it will be remembered that Cudworth's mere 'consciousness of an image' tended to blend into something almost as indefinite as Kant's mere 'blur of sensation.' As regards the fact that "with Cudworth, the endowment of Sense supplies no *a priori* elements; [while] with Kant, it gives us Space and Time, as its own forms,"—we must again agree that Martineau is technically right, and that this is probably the strongest point in his objection to regarding the two systems as similar. And yet, even here something might very well be said on the other side; for it is only by virtue of our 'anticipations' of all possible geometrical figures that we are able to comprehend the spatial attributes of things, according to Cudworth. This is a curious, though bungling, approximation to Kant's view that space and time are 'pure forms of intuition.'

As regards Martineau's second point, that "with Cudworth, the Understanding's 'intelligible ideas' (*νοήματα*) are themselves its *objects of knowledge*, and constitute the essences of things," we have to answer that sometimes they are so regarded and sometimes not. For we have seen that Cudworth apparently uses the expression 'intelligible ideas' (or whatever synonym of it) in two senses: (1) as immediate objects of thought, and (2) as forms of activity of constitutive thought. In the latter case, surely, we find something closely approximating Kant's categories, except for the important difference already mentioned, viz., that Cudworth's 'categories,' if we may call them such, are indefinitely numerous, while Kant's are only twelve in number, and are arranged according to a supposed definite logical scheme. If our attention be called to the crudeness of this conception of an indefinite number of categories, it is to be remembered that Kant's particular list of categories is plainly artificial; not only is the method by which they are obtained highly questionable, but the derivation itself, in several instances at least, is plainly forced. If Cudworth is crude here, and he certainly is, Kant's formal

procedure in the matter calls for apology rather than for imitation.

As regards the different 'consequences' of the two systems,—Cudworth's leading to a belief in our knowledge of the ultimate nature of things and Kant's leading to the opposite conclusion,—various things might be said. In the first place, it is a seriously difficult matter to say with certainty what are the logical consequences of a really vital method in philosophy. The 'consequences' of the Critical Philosophy for later speculation were certainly not free from ambiguity, and it is highly improbable that the later developments of German Idealism were such as Kant anticipated or such as he would have desired. But even if we keep to the 'consequences' as understood by Kant himself, there is similarity as well as dissimilarity. Both philosophers, surely, were concerned to show that some part of our knowledge had to do with truths *a priori;* and both, again, were not content merely to assume the 'innateness' of such truths, but attempted to vindicate their position by showing that such principles were presupposed in the very organization of our experience. That both were wrong, and equally wrong, in assuming 'constitutive' as opposed to 'regulative' principles, as determining the organization of our experience, does not diminish the similarity of their procedure, if the comparison is not carried too far.

If the above interpretation be correct, we find in Cudworth at least an interesting anticipation of certain phases of Kantian idealism. This refers, of course, to the doctrine of Kant as found in the *Critique of Pure Reason*, not in the *Critique of Practical Reason*. From one point of view, Kant's moral philosophy is the most rationalistic in form and the most moralistic in content of any of the great systems of ethics; but one can easily forgive his transgressions in both directions, for it is here that he first develops satisfactorily the conception of 'regulative' as opposed to (assumed) 'constitutive' principles. What looks like the division of significant reality into two worlds, was in truth an important step in the direction of that 'criticism of categories' in which philosophy so largely consists. Regarded from this point of view, Kant's method was as fruitful as Cudworth's was

essentially sterile. But Kant "builded better than he knew"; few philosophers of the first class have been equally obsessed by the rationalistic ideal, so far as their conscious procedure was concerned.

The relation between human and divine knowledge, according to Cudworth's system, involves problems analogous to those of Absolute Idealism. It will not do to say, as Cudworth sometimes seems to do, that God 'imprints' the 'ideas' or 'essences' upon the human mind. The 'ideas' or 'essences' which constitute the very nature of things, as knowable, must be regarded as modifications or activities of the Divine (creative) intellect. They exhaust reality considered as knowable; there can be no duplicates capable of acting as proxies, whether one call them 'imprints,' 'reflections,' or what not. If the 'ideas' or 'essences' in our minds were such 'imprints' or 'reflections,' the question as to whether our faculties were such as to enable us to apprehend absolute truth would arise in an aggravated form; for how could we know that the 'imprints' were exact or the 'reflections' undistorted? In truth, Cudworth himself admits that, if the criterion of truth be external, it does not make much difference whether this criterion be some external material reality or a hierarchy of 'ideas' external to the perceiving or knowing mind. The only reason why conceivability is the test of truth, irrespective of the make of our faculties, is that these 'ideas,' existent potentially in the perceiving mind, practically exhaust reality, so that we may say of a contradiction that it involves, or corresponds to, a nonentity. And this, of course, does not mean that there is a set of ideas for each perceiving mind, but rather that they exist in the particular mind only in so far as it partakes in the divine intellectual nature.

It might appear, then, that the relation between Cudworth and the Neo-Hegelians was at least closer than that between Cudworth and Kant; but all such comparisons must be made in the spirit of caution. T. H. Green's constant insistence upon the conception of the Eternal Consciousness as a solvent of ultimate epistemological and metaphysical difficulties does, indeed, remind one altogether too much of Cudworth's similar procedure, when he speaks of "a sun that never sets, an eye that never winks"; but

even if Green's argument is open to serious objection, when he approaches the ultimate problems, it must always be remembered that he has worked up to this position by a long and closely knit chain of reasoning, much of which may carry conviction even for one who cannot follow the philosopher to the end. Green himself doubtless makes too short work with the Absolute; but he certainly is not naïve and dogmatic in the sense that Cudworth undoubtedly is. There is all the difference in their treatment that there always is between a method worked out to the bitter end, for better or for worse, and an earlier vague anticipation of the results that might follow from the application of a method imperfectly understood and only crudely defined. In fact, this whole matter of 'anticipations' of the later trend of thought, whether philosophical or scientific, must be treated with great caution. It is a 'vulgar error' to suppose that 'history repeats itself' in anything approaching the literal meaning of the expression, and this is as true of the history of thought as of history in the ordinary sense of the word. The concrete context is always different and the really vital interests correspondingly different. That is why the 'pseudo-classicism' of the early eighteenth century was the really impossible working ideal for art that it is now universally recognized to have been. Of course the 'eternal verities' may seem to stand out after a given stage of development has been attained, but the process itself is concrete and vital. Works of art, systems of philosophy, and scientific discoveries are achieved by men living in their own time, subjected to the influences of their own civilization, not by pale spirits who have wandered from some other world.

ERNEST ALBEE.

CORNELL UNIVERSITY.

MAURICE BLONDEL'S PHILOSOPHY OF ACTION.[1]

THE philosophy of Bergson is too well known in America for thinkers in this country to be unfamiliar with the anti-rationalistic strain in current French philosophy. But an interesting differentiation of that strain in the work of Maurice Blondel is—so far as I have been able to discover—largely unknown.[2] This indifference seems, however, to be peculiar to us. The first edition of his principal work, *L'Action*, appearing in 1893, was quickly exhausted, and the rare copies that now may occasionally be obtained from book-sellers command a very large price. His lesser works have been similarly in demand. *L'Action* has been translated into Italian, and has been the subject of a number of dissertations or other scholarly studies in France, Germany, and Italy. In Switzerland and Poland his philosophy has been the subject of series of lectures. Parodi refers to Blondel as "the most brilliant and profound of the pupils of Ollé-Laprune,"[3] Lalande calls *L'Action* a "great work,"[4] and Ruggiero says it exhibits on the whole the same great profundity and wonderful clearness as Hegel's *Philosophy of Spirit*.[5] Ruggiero is also authority for the statement that Blondel is the spiritual father of Catholic Modernism in France,[6] a tribute to his philosophical importance which it is difficult for us to appreciate in a country where the church—as it exists and functions—has almost no speculative significance. The English writer on Modernism, Archdeacon A. L. Lilley, expresses his esteem for Blondel by saying that the latter's philosophy of action is a "profound contribution to the religious apologetic of our time."[7]

[1] A modified form of a paper read at the meeting of the Eastern Branch of the American Philosophical Association, December, 1923. This article is preliminary to a monograph on Blondel to be published in the near future under the auspices of the University of North Carolina.

[2] William James was at one time in correspondence with Blondel.

[3] *La Philosophie Contemporaine en France*, Alcan, 1919, p. 302.

[4] This REVIEW, Vol. XXXI, p. 553, note.

[5] *Modern Philosophy*, trans. Hannay and Collingwood, Macmillan, 1921, p. 204.

[6] *Ibid.*, p. 213.

[7] *Modernism, A Record and Review*, Scribner's, 1908, p. 114.

In some sense, as the title of his chief work immediately suggests, Blondel asserts the primacy of the will over the intellect. If he must be classified, he falls naturally among those who emphasize the dynamic aspect of reality at the greater or less expense of its rational constitution. But those who have made this emphasis have obviously differed so widely in their precise theory of the dynamic that little progress is made with this first rough classification. Nevertheless the characterization is true as far as it goes. Blondel is untiring in his assertion of the living, concrete, active nature of reality, and his repudiation of "those systems of facts or ideas which are at bottom mere worlds of abstractions—both those that rest upon the data of experience and science and so never get beyond an interpretation of objects, and those that take concepts, artificial and inadequate substitutes for reality, as materials of metaphysical architecture."[1] Both positivism and rationalism, he says, leave life, thought, soul, and concrete being mere flat projections on a plane surface. He realizes, however, that in such general and almost rhetorical assertion of his position he has not marked his advance upon those who before him distinguished between the discursive understanding and the intuitive intelligence, the spirit of geometry and the spirit of finesse, conceptual and real knowledge, analytic reflection and concrete contemplation. What gives the character of a 'discovery' to his work (and I take it that he assimilates his own reflection to that of his master, Ollé-Laprune) is, he believes, his original method of humanistic experimentation.

This experimental method of Blondel's seems superficially to be an abstract dialectic of ideas. But it is not intended to be such, but rather a self-evolution of the total living human being, the record of the changing forms of the vital substance that has been put into the philosopher's retort. "The chemist," he says, "does not pretend to make water without hydrogen and oxygen. I do not pretend to know and prove, affirm and estimate man's destiny, without having delivered all the humanity I have in me to the crucible. This organism of flesh, appetites, desires, and thoughts, whose obscure workings I feel constantly within me, is a living laboratory, and it is out of it that my science of life

[1] *Leon Ollé-Laprune*, Paris, Bloud and Gay, 1923, p. 55.

must come." [1] The method of our philosopher may be called with equal truth scientific experiment or dialectic; but the qualifications must always be made that the experimentation is not of dead matter or abstract symbols but of the courageous and sincere will, and that the dialectic is not a game of words or theories, but a real process of the living spirit. With these qualifications, dialectic and experimentation are synonymous terms.

Blondel's function, then, as a scientific philosopher, is to observe what happens when the total meaning of man's life is put to question. The first positive answer that his tests suggest for analysis is the answer of science. Science for him is a useful system of symbols but not a report of the nature of reality; for when taken in the latter sense it reveals an essential incoherency. The success and prestige of science as a whole are due to the constant association and mutual helpfulness of two irreducible orders—the mathematical and the natural sciences. The two orders coöperate, but their coöperation cannot be rationally explained. Strictly speaking, mathematics deals with abstract continua—series of homogeneous elements. And yet the simple, homogeneous elements which mathematics assumes in its constructions presuppose an analysis of reality which never has been and never can be made. Pure homogeneity is a valuable heuristic device, but never an empirical fact. The natural sciences, on the other hand, start with the distinctive qualities and unresolvable complexes of experience, that is, with pure heterogeneity. Physics, chemistry, and biology all aspire toward a mathematization of their diverse elements and complex concatenations—in a word, toward the regularity and practical availability of simple series. And in so doing, they aspire, it seems, toward a fuller reality and solidity. But for intellectual analysis there always remains a fissure between the natural and mathematical sciences, because the former are based on qualitative wholes and the latter on abstract uniformities. However, says Blondel, coming now to his characteristic contention, the chains broken for knowledge are welded again by action. The act of the human subject in adapting these disparate theories to each other and in constructing their reciprocal symbolism is a deeper fact than any

[1] *L'Action*, Alcan, 1893, p. xii.

revealed by the yieldings of positive science in its exclusive nature. There is thus for Blondel a special intervention of action at this synthesizing moment of the dialectic. Science rests on an X which turns out to be, in this humanistic experimentation, the mediating force of action.

The break-down of intellect in science is, for Blondel, typical of its break-down in every attempted intellectual description of reality. For example, after the view of an external, positive science has failed because it has neglected that internal principle of unity in every phenomenon—that secret operation immanent in the diversity of parts, in a word, the subjective act—the internal principle for its part is found to need some bridge to connect it with the outer world of objects. The products of subjects are always ultimately the result of collaboration of the will with the world. But here again we are confronted with two series which must be got together and yet cannot be synthesized except by the importation of a wider and deeper force of action. The subject could not work upon so-called 'brute matter' if matter were not akin to the subject, that is, if there were not already latent in matter dynamic aptitudes and spontaneous energies which the will of man wakes up. The familiar formula, 'no object without its subject,' is translated by Blondel into the formula of the coaction of the human will and the ambient energies of the universe.

Metaphysics at least might seem to be a wholly intellectual enterprise; but for Blondel it cannot be what it aims to be without the aid of action. Man builds up his positive and rational systems, he says, from mere human observations of the world. In a sense, this is all the material that enters into metaphysics. And yet, when the total theory is constructed, it is found to be more than the sum of its parts, and the transcendent something which has been requisitioned to illuminate the merely natural content proves to be an active, ideal, supernatural principle. "From the very play of life a conception superior to life is produced."[1] We can only think *sub specie totius*, and that form of the whole which we require, we cannot as purely natural creatures furnish. In the last resort, metaphysics expresses no factual truth, but an overflow of the will—what man wills to will, and in a sense cannot.

[1] *L'Action*, p. 292.

These illustrations of Blondel's method have been given with the object of showing that Blondel constantly supplements what he conceives to be the abstractness of intellect by the efficacy of dynamism. His writing is full of such striking assertions as that "the least *act* has a reality, importance, and dignity . . . infinitely superior to the *fact* (he means the external fact) of the entire universe,"[1] or that "the slightest fillip posits and solves factually a problem of which abstract knowledge never renders any account,"[2] or that "to lift my little finger I must move the whole system of phenomena."[3] These assertions are more or less provisional and must not be taken too seriously; but they mark a trend; they give the reader's mind a set toward an antithesis; and they create a problem, whether it later be solved or not, which is more or less artificial. The most striking instance of all, in *L'Action*, of the opposition of intellectual construct to practical performance is the final treatment of the dialectic as a whole as phantom-like until it is made to come alive by the subjective act of a believer. The reader follows in good faith the ascent of the dialectic from simple to complex, emptiness to richness of content, assuming that in some sense he is dealing with the real world. He has understood that the philosophy under examination has nothing to do with the 'flying marvels' of a purely rationalistic dialectic, and he supposes himself to have been assured that only a dialectic of substance and reality finds place within Blondel's serious thought. And yet when he has followed the course of the long argument from nothing to the transcendent God, he is suddenly confronted with the question how this process is to be given life and being. It is, it seems, only a speculative system of symbols, a rigid net-work of relations; and it needs to be breathed into to become flesh and bone. Thus the science of destiny, like the science of nature, is a mere intricate system of references until the creative act of assent makes it real for human spirits.

There is an interesting application of Blondel's conception of 'action,' outside of pure philosophy, in his treatment of church dogma. He acknowledges the relative right of historical criticism

[1] *L'Action*, p. 99.
[2] *Ibid.*, p. 91.
[3] *Ibid.*, p. 123.

in the field of religion and the legitimacy of the attempt to establish by an unbiassed intellectual examination the precise nature of the alleged facts of the Gospels. It is obvious that error has crept into the reports of what actually happened two thousand years ago on the shores of Galilee, and that it is desirable from every standpoint to have an accurate rather than a garbled account of those events. But while this critical task is to be carried through in the interests of religion as well as of history, Blondel points out that the mental function through which the most adequate truth, even of historical happenings, is obtained is not the function of intellect in abstraction, but that of action. The complete truth even of events in space and time is revealed only to the man who brings to them a positive attitude of faith. Thus in a sense the rights of historical criticism, as the term is ordinarily understood, are denied, because only that scholar is to be credited whose findings agree with the most illuminated interpretation of Christian faith. Moreover—and at this point Blondel is most subtle in his suggestion—the documentary evidence to which scholars go, to ascertain what Christ did, may give the testimony of men too little active to have comprehended fully what was going on about them. If they were not fitted in their mental functioning to grasp the import of what they saw, the testimony of later men who saw with the eye of faith, and who were actively disposed, might be truer to the facts of Christ's life than the testimony of Christ's contemporaries. In the last resort, no kind of truth exists which is not procured through action.[1]

We set out early in the discussion to try to determine what distinguished Blondel's dynamic and vital philosophy from other philosophies that made a similar emphasis. An accurate understanding of Blondel seemed to depend on finding out just what he means by action and, in particular, how he relates action to intelligence. We have seen that at many points in the dialectic, in certain general assertions, and in his theory of dogma, he apparently opposes them to each other. Perhaps this is not his intention. Blondel is scarcely consistent in his interpretation of his main category, and we shall presently be in a position to consider his

[1] For this particular point in Blondel's doctrine I have not been able to get first-hand authority, but rely upon the apparently accurate account of A. L. Lilley, *op. cit.*, pp. 112–129.

more concrete view of the will and the intelligence. But the student of his writings is not able to escape the conclusion that if he means, as he evidently does, to assert in the end the full individuality of the function of action, he at least lays himself open to grave misunderstanding by the form of his earlier statements. He half seems to realize that if he is to maintain the wide meaning of the term 'action' which he thinks most accurate —action of the whole of man, as the meeting-place of philosophy, science, and morality—he must make reason a function or aspect of it, and not allow the rational to fall outside the dynamic. If reason falls outside, it limits action, and thus derogates from action's utter inclusiveness. But half the time he falls back into an analytic mood in which he feels himself unable to assert the primacy of action without denying the reality and validity of reason. "*In actu perfectio*,"[1] he tells us, but in reflection "an irremediable insufficiency."[2] The depreciation of reason shows itself as a definite logical habit in the piecing out of intellect by action at turning-points in the dialectic. On the whole, thought cannot, for Blondel, make ends meet, or turn dialectical corners. Action is needed to make the decisive movement in joining the natural and mathematical sciences, subject and object, finite and infinite. Even when he admits a certain validity in the conclusions of speculation, he is likely to be impatient with the slow and winding character of its procedure, which he contrasts with the swift sureness of will. "If," he says, in referring to Kant, "the Critical Philosophy destroyed the objective validity of time and space, long, long ago the moral sense . . . achieved its Transcendental Æsthetic. The upright conscience learns in a single flash what rational analysis attains laboriously enough."[3]

This sharp dichotomy of the modes of human expression, in so far as it characterizes Blondel's method, tends to make abstractions for him of both aspects of the mind. Action tends to appear as movement and force without reasonable form, a mysterious primitive *élan*, which operates we know not how, an artifice and decree which negotiates the union of separate elements in a miraculous fashion. And reason tends to become a formal

[1] *L'Action* p. 409.
[2] *Ibid.*, p. 375.
[3] *Ibid.*, p. 366.

analytic process which is, to say the least, not the typical expression of intellect. When in his little book on the *Process of the Intelligence* Blondel describes 'notional knowledge,' the description scarcely corresponds with what we know in the concrete of intellectual method. Its representations, he says, are artificial like the manufactured products of industry or the mounted specimens in the museum; taking knowledge of this sort for reality is like taking the specimen of dry straw for the green grain in the field.[1] One may allow that when and if the intellectual argument loses its hold on reality, it needs an infusion of a vital sense of being; but one is scarcely ready to admit that the typical intellectual enterprises of man-kind—science and philosophy—are as little animated by a sense of reality as he sometimes suggests. For example, when Blondel says that "all of Zeno's subtleties did not prevent Achilles from catching the tortoise,"[2] the reply is that Zeno's subtleties represent an imperfect stage of the theory of the continuum, not the essentially irrational character of the continuum itself. The contemporary mathematician finds no problem in Achilles' feat, on the purely scientific basis. Science in general has a relevance to reality which Blondel never grants it. He seems also to miss the concrete intent of many of the traditional systems of philosophy. Certain systems, notably those with a strong religious bent, he has fine feeling for: those of St. Augustine, Pascal, Newman, and for certain aspects of Spinoza's and Plato's. But he is put off by the formal manner of Descartes, Kant, and the German metaphysical idealists from understanding the true significance of their work.

It is interesting to observe that our writer's inadequate view of the intellect as such has vitiated his own necessarily intellectual procedure. Blondel's work is full of insight and is properly regarded by its author as part of that essential modern tendency to consider reality in order to try and seize it in all its complexity, dynamism, and vitality. But the logic of his own procedure is sometimes as formal as he seems to suppose all logic by its very nature must be. Witness the following arguments: 1. Action is a necessity, because the attempt to escape action through suicide is also an act. 2. One cannot make 'nothing' an object of thought,

[1] *Le Procès de L'Intelligence*, Paris, Bloud and Gay, 1922, p. 237.

[2] *L'Action*, p. 80.

because all thought implies a distinction between the thinking subject and the object thought, and therefore implies positive being. 3. The attitude of the practical sceptic may be summed up in the judgment: *Nolo velle.* But not to will anything is equivalent to a positive willing of nothing. Thus the mere notion of absence of will involves a deliberate volition. *Nolo velle= Volo nolle.* The speciousness of arguments of this sort depends largely on the repetition of terms in such a way that a rational connection between them seems to be exhibited. But the reference of the terms is not necessarily the same throughout the argument, and the conclusion, therefore, does not necessarily follow. In the first argument 'action' has a shifting meaning. Suicide is scarcely an act in the sense intended in the assertion that one may escape action through the deliberate ending of one's life. Moreover, even if the reference of the term were identical, the conclusion is irrelevant. The real purport of the argument is that, by the use of certain device, one may get rid of the type of active life which is distasteful; and the fact that the device is of one sort or another has nothing to do with what the device procures. The other arguments are weak for similar reasons. The terms are, as it were, kept in capsules, and their quality and intention not sufficiently regarded. As they stand, these demonstrations are not so much concrete human experiments as mental games.

The appeal to formal consistency as the test of truth, the more or less veiled assumption that mathematical demonstration is demonstration *par excellence*, is part of the general view which separates intellect somewhat too sharply from action, and is the complement of the treatment of action as a secret aspiration of the heart. The antithesis of intellect and action is practically useful, but ultimately untenable; and Blondel has not escaped the adverse criticism, based partly on misunderstanding and partly on a real inconsequence of method, which his delineation of the two functions has suggested. In his more recent work he has attempted to meet this criticism directly, and to show that, while he insists on the heterogeneity and incommensurability of practice and theory, he insists equally on their solidarity and upon the essential unity of spirit. "The great philosophic need of our

time is perhaps to re-make the synthesis of intelligence, to do equal justice to discursive thought and intuition, and not to isolate, oppose, or sacrifice to each other members of the same organism."[1] Our author undertakes to show, then, how knowledge through action is not in conflict with thought, but the normal way of its development and perfection. As 'the capital question of method,' he considers how the real or full intelligence seizes, fertilizes, assimilates, and unites being, and gives it a solid basis without blurring its form (*fond sans confondre*).[2] He rejects with as much force the mysticism of intuition and the merely sentimental *élan*, into which action separated from reason tends to degenerate, as he did formerly and still does the method of the abstract universal. Neither speculative dialectic, on the one hand, nor a sudden bound of heart or will, on the other, will yield true understanding. Both the penetration and warmth of the one and the rigor of method of the other are indispensable *desiderata* in a right judgment of reality.

To prove that the dynamic intelligence, which is the same as the concrete function of action, preserves in itself all the clearness and precision which criticism demands, Blondel draws largely for the phrases and turns of thought in his exegesis upon that arch-intellectualist of the Church, St. Thomas. In the manner of St. Thomas, he treats the mind on its various levels, showing what is implied at each stage of development. At the very least, mind implies an affinity with all nature, an immanent reason, the tendency to understand and become all things. This is the Aristotelian conception of mind. But at this stage it is a mere colorless, primitive force. In order to rise to a higher level of comprehension, mind as natural capacity for understanding objects has to be replaced by mind as inclination for them. In this inclination is the beginning of an affective and voluntary mode of the expression of intellect. The saying of St. Augustine, "Anima est plus ubi amat quam ubi animat," is here applicable. The further development of mind comes largely through a strengthening of this initial inclination. Inclination gets further inside an object than mere potency of knowing; but inclination is a lesser degree of that power of charity or kindness which

[1] *Procès*, p. 278.

[2] *Ibid.*, p. 244.

yields the intimate content of a person or thing to the inquiring spirit. Intelligence becomes more plastic the more it is softened by compassion, and the more it is worked and expanded by sympathy. Intellect itself is reinforced by these functions which superficially seem to be external to intellect. But the most important factor in the growth of intelligence is action—action in the sense of the coöperation of one personal will with others and with the spirit discernible in the universe. Kindness and charity, so long as they remain merely passive attributes, do not give the synthetic quality to the understanding that the arduous labor of a religiously ascetic life gives. Thus Blondel, following St. Thomas, seeks to present the knowing function as an affair of degrees, logically distinguishable and explicable, and to exhibit thought and action as internally related.

Blondel's last word about the relation of the two functions is that they remain to the end formally distinct, but that they approach a limit of coincidence in content. They are the two emphases of the finite-infinite structure of man. The notional intelligence expresses man as spread out in time, always seeking to understand and do what his secret heart desires, and never being able to consummate utterly what the infinite action within him inspires him to yearn after. The intellect represents what man as man is and remains, a struggling and submitting being; it expresses the formal distinctness of his existence, which never resolves itself into the pure essence of God. But the active spirit of God is always immanent in, the goal and origin of, the particular operations of even the abstract intelligence. In other words, there is no truly abstract intelligence, only degrees of concreteness of intelligence.

This distinction between intellect and action is far removed from the absolute opposition that we seemed to find earlier in the development of the dialectic, and in many general statements of our writer. Now it is not fair to judge any man's view by fragments. What Blondel says at any point must be judged in the light of what he says in the end and what he says altogether. The inference of the reader is, then, that we have here a strikingly, perhaps misleadingly, pedagogical presentation of philosophical matter. Ideas are offered as opposed, in the first instance, in

order to meet on its own level the ordinary abstracting intelligence of a philosophical layman. Man cannot all at once appreciate the synthetic view to which Blondel from the first knows that he will ultimately ascend. The antithesis must be allowed to be in part a device of arrangement, rather than a final expression of opinion.

But a doubt persists whether this plea of persuasive presentation can explain away all the abstractness that seems to show itself in the 'philosophy of action.' There would seem to be no sufficient excuse for ever presenting science, for example, as a dissecting and isolating notionalism, when its inner meaning is concrete and real. Even if the description of intellect as imitative and conceptual is merely provisional, there is a false artificiality about the apparent finality of the description; and it is not clear just how and to what extent a truer view would, for Blondel, revise the earlier statements.

Moreover, there is a fundamental contradiction which persists even to the end, and which it is difficult to see any way of mediating. The concrete individual is asserted to be at once ineffable and intelligible. But here a choice would seem to be forced. Ineffable means just unintelligible. If at the heart of every particular thing there is a secret uniqueness and originality which defies, not only in fact, but by nature, the processes of understanding, then individual things cannot wholly be absorbed into the larger whole of action as into an explaining and sustaining medium. In so far as individuals are ineffable they are mutually repellent, and they are not subject to the influence of the infinite act, and the development of the meaning of the infinite act will not make their meaning any clearer. Blondel seems to cling with equal persistence to both interpretations of things. On the one hand, "every phenomenon is a singular case and a unique solution." [1] "Every particular synthesis shows itself as absolute heterogeneity and true originality." [2] On the other hand, reason is immanent in every particular thing as its origin and end.

The most striking example of this attempted union of contradictories in one subject is the treatment of the divine or supernatural in man as both immanent and transcendent. "The per-

[1] *L'Action*, p. 396.

[2] *Ibid.*, p. 433.

fect life of intelligence can finally only be gift, grace, revelation of a mystery naturally inaccessible." Surely this is plain enough. A mystery, a gift, grace. The reason, in any sense which is normal to us, is precluded from grasping such. But in the same breath Blondel adds, "But the whole movement of intelligence, even in its elementary processes, is drawn as it were toward this magnet,"[1]—that is, toward the divine life of action. God, or the complete and concrete life of the dynamic universe, is the teleological explanation of every man's act, in which case everything is, in principle, intelligible, and at the same time beyond reason, true gift.

In a recent article, quoting a saying of Pascal, Blondel rightly remarks that "to understand an author, one should grasp and harmonize such of his assertions as seem most opposed."[2] Remembering the truth in this observation, that paradoxes are often the profoundest truths, the critic is slow to ascribe to Blondel's own thinking any ultimate contradiction. And yet the grudging treatment of the intellect as such, kept in some sense to the very end of the argument, is not quite compatible either with the intellect as we know it in life or as it is characterized by the wisest philosophers. The metaphysical idealists of Germany, for example, were contemplating, in their pure and infinite spirit, not an hypostatized abstraction, but a concrete unity. And yet the contradiction in Blondel's method is to a large extent a virtue, for it is the index and expression of a temper bold enough to attempt to go where few contemporary philosophies will go, into the realms where philosophy and religion meet. A contradiction at this level of reflection may be more instructive and, indeed, truer than consistency on the level of external analysis.

KATHERINE GILBERT.

THE UNIVERSITY OF NORTH CAROLINA.

[1] *Procès*, pp. 272, 273.

[2] *Revue de Métaphysique et de Morale*, Vol. 30, No. 2, p. 137. "Le Jansénisme et l'anti-Jansénisme de Pascal."

DISCUSSION

STATISTICAL LAW AND THE ONTOLOGICAL PROOF.

DR. H. R. SMART'S criticisms, in the January number of the PHILOSOPHICAL REVIEW, of "Another Form of the Ontological Proof"[1] are not only of interest in themselves, but also express what is probably the majority-view among respectable thinkers on the subject of statistical law. It is usual to interpret statistical law as no more than a provisional description of certain group-phenomena; a description which would be supplanted, if one had full information as to details, by reduction of all the events in the group to terms of exact law. In the paper above mentioned, I urged that this view is not sound; that there are really two kinds of law, the one rigorous, the other statistical and consistent with a degree of ultimate indeterminateness. The latter kind applies—so I claimed—to large collections of like bodies, where these bodies are not closely bound by some mutual force such as gravitation or electrical attraction; in short, are moving in relative independence of one another.

In the first passage which Dr. Smart critizes, I was trying to prove that the statistical kind of law is unique and cannot be derived from the exact kind. I argued in substance thus: if we have a collection of particles moving in relative independence of one another, and if the motion of each particle wholly obeys exact laws, then *to an observer who knows only* the motion of a certain particle for a certain time, the sum-total of all the motions in the collection for that time or for any later period is indeterminate. It might be anything, for aught he knows. But in fact *for such an observer* this total state of motion is not indeterminate, since he knows that it is a state of equal distribution of the possible combinations of forces that act on the particles. The fact, then, does not agree with what exact law would lead *that observer* to expect; hence he must conclude that the assumption of exact law is either erroneous or inadequate to account for the fact. Such was my argument. I was not quite satisfied with it, even though it has the look of a syllogism in A E E second figure. After all, it simply amounts to this: you cannot get the property of 'equal distribution' out of exact law or many exact laws. If a collection of particles obeys, say, Newton's laws, you cannot thereby guarantee

[1] PHILOSOPHICAL REVIEW, July, 1923.

that those particles will among them realize all possible combinations of forces in approximately equal number. But they do so. Therefore there is another principle at work besides exact law, to wit, the principle that all possible combinations occur—which I call for short the principle of 'equal distribution.' And by the same token, the individual particle does not *wholly* obey exact law. Its motion must be to some degree indeterminate.

Now I submit that Dr. Smart, who represents well the orthodox view, has nowhere met this argument. He has indeed most candidly quoted me at length on p. 75; but I fear the inelegance of my exposition concealed its gist. He urges (p. 76) that a collection of particles each of which obeyed exact law would have a determinate state of motion on the whole: "if each particle obeys a strict law of its own, then it would seem that its path could be accurately plotted . . . *i.e.*, the outcome of the laws to which the several particles are subject is numerically definite." Of course this is true; I said only that the total state of motion was indeterminate from the point of view of a certain particle or "with respect to any element's behaviour" (I should have said "any *one* element's behaviour"). The future path of a certain particle could not be plotted *merely* from knowledge of its past path, if the motions of the several particles were relatively independent; for we should not know what collisions the particle in question would suffer. But even on the ground that the total state of motion is quite determinate, we find no way of accounting for the 'equal distribution' which pervades the collection. Even if we knew *all* the paths in the past, we could not thereby guarantee equal distribution in the future. The indeterminateness is not due merely to the relative independence of the elements. That independence is a necessary condition, but not a sufficient one. Indeterminateness is guaranteed only by the additional principle that all possibilities *be realized.* And this is why I cannot accept the orthodox view of scientists and philosophers, that exact law is the only kind of law. Can Dr. Smart, or indeed any one else, account otherwise for this curious property of 'equal distribution'? Until that is accomplished, the insistence on exact law appears to be mere dogmatism.

From the above conclusion I proceeded to generalize to the proposition that whatever is not intrinsically impossible (which means self-contradictory) is real, and with equal distribution of all the possibilities. For if there were not such equal distribution, or if anything intrinsically possible were not realized, there would be an unintelligible preference in the kingdom of reality; and that is a

mystery which is too irrational to be credible. If, then, we have faith in the rationality of the universe, we must declare that all possibilities are equally realized; and this seems to be, as far as our present lights go, an absolutely *a priori* principle. Of course, if the earlier argument is correct, this implies a certain degree of indeterminateness in the particulars. Thus chance—in the limited sense here understood—is somewhat paradoxically found to be necessary in a perfectly rational world. Dr. Smart, with many others, seems to assume that a world of exact law is the only rational kind of world. I would challenge this assumption. A law is quite as mysterious and inexplicable as anything can be. Why should energy be conserved? Why should all electrons have always the same charge? Why should light have a constant velocity, except in the neighbourhood of matter?

Dr. Smart finds, if I understand his remarks on pp. 79–80, that my notion of freedom within limits is after all deterministic; for "the limits of variation are as rigidly determined as the most punctilious scientist could wish." Of course I admit a limited determination; what harm does it do? Is it that this destroys the Divine foreknowledge of particulars? That is a very different problem; but if pressed, one may say with St. Thomas that God, seeing in eternity, sees now the future free choice of a finite person. In any case, however, I am not attempting to do away wholly with precise law. Dr. Smart is not contradicting my view when he finds that in it "the idea of determinism as such is not negated" (p. 80). I did intend to negate but to supplement it.

Nor do I see that the criterion of internal consistency is inadequate to guarantee being. In a given context or universe of discourse, whatever conflicts with that context is *for that universe of discourse* internally inconsistent and is a *contradictio in adjecto*. Certainly I have "not really intended to deny the existence, at all times, of some necessary conditions, of some essential context" (p. 82). My position is a dualistic one; it proclaims the principle of 'equal distribution' as well as that of 'exact law.' Insisting on the former, I have nowhere meant to deny the latter; though I have not here tried to explain its source, as that did not seem to me necessary for the purpose of the paper.

Dr. Smart is correct in pointing out "the vast importance attached to the temporal element" (p. 81). Many possibilities that are not actual now become actual later; and instances of this are legion. A man shooting once at a target can scarcely hit more than one spot with one bullet, but after a time he will hit many spots, and quite in

accord with the principle of equal distribution. Is it urged as an objection that my view is intended to apply to series of events as well as to co-existing elements (or events)? Of course time is not for me "the only significant condition" (p. 81), but it *is* highly significant. I suspect that my critic has a tendency to force me over into an extreme position which is not my own. We philosophers frequently do this; and the great advantage of dualism is that it avoids such an imputation if not always such an accusation.

In the end Dr. Smart declares that I have not provided "any new solution of the problem of freedom" (p. 82). I think this is true, but perhaps not as he means it. I have no solution of that problem to offer, nor do I think anybody else has one; just because nobody has explained how freedom in the indeterministic sense differs from mere indeterminateness such as is found in material collections. One may however believe that there is such freedom, and that it would not be possible unless there were some indeterminateness at the very roots of reality. Nor do I see that there is any more conflict between indeterminateness and exact law than there is between a table which holds up a book and the book which presses down on the table. There is conflict between strict law and chance only when the former is made ubiquitous; an extreme position whose influence over so many thinkers I do not understand. But clearly this is no solution of the whole problem of freedom. As to my critic's assertion that "independence turns out to be an *a priori* hypothesis, in flat contradiction with scientific experience" (p. 82), this may be true of absolute independence, which I have not intentionally defended, but it is not true of relative independence. The motion of the earth about the sun is relatively independent of the revolution of any binary star about its centre of gravity, according to our present scientific knowledge; these are two systems whose motions have inappreciable mutual effect.

In conclusion I wish to thank Dr. Smart for his courteous and painstaking criticism, which directs attention to fundamental metaphysical points upon which we all need further light.

W. H. SHELDON.

YALE UNIVERSITY.

REVIEWS OF BOOKS.

A Study of Kant. By JAMES WARD, F. B. A. Cambridge: At the University Press, 1922.—pp. viii, 206.

Professor Ward's *Study of Kant* is, next to Edward Caird's two monumental volumes on *The Critical Philosophy of Kant*, the most important work in English that has appeared on Kant's philosophical achievement as a whole. I emphasize "as a whole," in order to prevent any odious comparisons of Ward's *Study* with Norman Kemp Smith's much more minute and detailed examination of the *Critique of Pure Reason*, by itself. The proper comparison is with Caird's treatise, and despite the startling disparity of size—two volumes of over 650 pages each against one volume of barely more than 200 pages—Ward's discussion is, we may fairly affirm, no whit inferior in philosophical importance. Indeed, it provides an admirable contrast to Caird's treatment, for whereas Caird interprets Kant throughout as the forerunner of Hegel, Ward interprets him no less consistently as the successor of Leibniz. This last phrase, however, does less than justice to the originality which Ward concedes to Kant. For, if Kant, on Ward's view, shares Leibniz's metaphysics, he goes far beyond Leibniz in working out the ways in which the *activity of the subject or self* manifests itself in knowledge and morality, in æsthetic appreciation and in the teleological interpretation of Nature. "By a single principle Kant opened up for philosophy a renewed and fruitful career—by the central truth, I mean, which he called the synthetic unity of apperception" (p. 80). Leibniz's monads had, indeed, been conceived as centers of spiritual activity, but that activity had remained empty and abstract until Kant—himself not clearly aware of what he was doing—worked out in detail its manifestations in the various realms of our experience, and thus showed how everywhere it determines the character and nature of the universe for us, at least in its universal (*a priori*) aspects.

Needless to say, Ward's interpretation of Kant is but another instance of the truth that any independent thinker, who undertakes to sort out what is living from what is dead in Kant's philosophy, is bound to identify what is living with what he, personally, believes to be the truth about the universe. Mere *Kantphilologie*, however scholarly, will not guide us through the inconsistencies and ambiguities incidental to the development of Kant's thought, in which so many conflicting tendencies met and struggled for a reconciliation. The critic needs a clue through the maze, and it adds to, rather than detracts from, the merit of Ward's interpretation of Kant that he stresses

in Kant all the doctrines which fit into the pattern of his own philosophical convictions, as we know them from his *Naturalism and Agnosticism*, from *The Realm of Ends*, and from *Psychological Principles*. And, correspondingly, when he criticizes Kant, it is generally for having ignored, or, at least, failed to make full use of, some principle which counts for much in Ward's own philosophy. It would be easy, but foolish, to object that such a treatment does not give us the real Kant, but only Ward's picture of Kant. For the real Kant (in this sense) was not known even to Kant himself, and when Kant was asked towards the end of his life who among his commentators had understood and interpreted him best, he could only answer, "Schulze!" And even then he had to add the qualification, "*Nach Buchstaben.*" No, the great Kant-interpreters have all been independent thinkers who found their own truth adumbrated in Kant. And if we are wise, we shall not wish it otherwise.

Ward, then, studying Kant in the light of his own philosophical convictions, finds the great value of Kant's philosophy in what, borrowing Kant's own term, he calls its *anthropomorphic* character. "Anthropomorphism" is a term which is nowadays in ill odour, and a careless reader may jump to the conclusion that Ward, in applying the term to Kant's work, means to condemn it. Nothing could be further from the truth. It is just what is anthropomorphic in Kant that Ward regards as living. It is just Kant's failure to be consistently anthropomorphic which provokes Ward's most searching criticisms.

Now, what does "anthropomorphism" in this connection connote? From the *Hertz Lecture* on Kant which Ward delivered before the British Academy (*cf. Proceedings*, Vol. X) and which sums up the argument of his *Study*, we learn that it means "immanent metaphysics," *i.e.*, "the projection on to the object of attributes pertaining to the subject—more exactly, the interpretation of the World in terms of Self" (*H. L.*, p. 14). Again, to be anthropomorphic "is in general to interpret the world in terms of ourselves, and more especially to orientate the natural from the standpoint of the spiritual" (*ibid.*, p. 18). Ward admits (*Study*, pp. 137, 8) that anthropomorphism is not a happy term, and suggests that "epistemological reflexion" would be better. But, it seems to me, the gain in respectability would be slight, and the price in added technicality heavy. Moreover the new term is, if possible, more ambiguous than the old one. For there are many thinkers, both realist and idealist, who would claim to be engaged in epistemological reflexion on the relation of subject to object, but who would emphatically reject the "anthropomorphic" theories of Kant and Ward.

In detail, there are, according to Ward, three specific features of anthropomorphism in Kant. (1) First and foremost, there is, of course, the "transcendental unity of apperception" which is the source of all the categories. In synthesizing the manifold of sense according to its *a priori* forms, this unity of apperception imposes upon the object logical or formal characteristics. This is Kants' Kopernican revolution: such logical characters as the object has are projected upon it by the thinking subject. (2) "It is our own moral character which prompts us to believe in a realm of ends, to which we ourselves . . . belong, and of which the Supreme Head is God" (*Study*, p. 132). (3) When we find the realm of nature conformable to the realm of ends; when we find mechanism organic, *i.e.*, instrumental, to life; when we find the seeming contingency of nature in its details none the less reducible to relatively few and simple laws, and thus manageable for intellects such as ours; when we find beauty supervening like an added grace upon the mechanical arrangements of nature—there is awakened in us the thought of another intelligence than ours, a supersensible *intellectus archetypus*, which has adapted nature to our *intellectus ectypus*. Thus, in each of the three great critiques, the central thought is anthropomorphic. Ward quotes Kant's own striking remark, "*I am* is the original of all objects," and treats it as the motto, so to speak, of anthropomorphism. He interprets it to mean that the categories are discovered in the subject's self-conscious reflection upon itself, and then by analogy transferred to the object; that the recognition of other animate beings, and especially of other intelligences, other moral agents, comes with intersubjective intercourse; that the belief in God, whether as moral ruler of the world or as *intellectus archetypus*, is, once again, modelled on what the subject knows of itself. Thus, Kant's metaphysics is a spiritual pluralism, like Leibniz's world of monads, and its foundation in fact is each subject's self-consciousness, the "I think, I am" of Descartes, the "active spirit" of Berkeley.

Whilst, however, thus representing anthropomorphism as Kant's greatest philosophical achievement, Ward is inevitably compelled to criticize Kant severely for his failure to sustain his anthropomorphic point of view consistently, or to develop it fully. In fact, it appears that Kant is guilty both of sins of omission and of sins of commission. Among the former Ward enunciates chiefly four. (1) Kant forgets that experience is not merely cognitive, but also conative. In acquiring experience, we become, as Ward likes to put it, "expert by experiment." More important even than the presence of the object to us in experience is the interest which we take in the object. "In

our intercourse with the external world we have limbs which the Ego controls as well as senses which the Non-Ego affects" (*Study*, p. 83; *H. L.*, p. 12). (2) Such interest is in every subject "selective," to which observation Ward might well have added that every subject's position in the world is unique. For the individual perspective under which each subject, in Leibniz's phrase, "mirrors the universe" would seem to be equally the result of selectiveness of interest and of uniqueness of position. (3) Kant "might have seen that transcendental apperception is bound up with transsubjective intercourse . . . " (*H. L.*, p. 14); in other words, his eighteenth century individualism makes him overlook the social character of knowledge and morality. It was Fichte who clearly grasped this aspect of Kant's central truth, viz., "the unity of the complete self at the level of social intercourse, when conscience emerges and the experient subject becomes a person and autonomous" (*H. L.*, p. 21). (4) Kant, again sharing the lack of historical sense characteristic of his age, neglects to study the spontaneity of the subject genetically.

Turning, now, to Kant's sins of commission, Ward emphasizes only one, but this a big one, with widespread ramifications throughout Kant's philosophy, viz., the doctrine of the *inner sense*, and its corollary that the self, like the external world, is experienced only as a *phenomenon*. It is, of course, obvious that, if the anthropomorphic thesis of the centrality of the subject and of its activity is to be maintained, the doctrine of the inner sense must go. It, like other mistakes of Kant, is due to bad psychology. And it is not only utterly inconsistent with all that is said in the *Critique of Pure Reason* about the transcendental unity of apperception, but it leads also to the dualism of *homo phenomenon* and *homo noumenon*, empirical and intelligible character. Hence Ward, after devoting the first half of his *Study* to an exposition of Kant's anthropomorphism (pp. 41–139), applies himself in the second half to a searching and illuminating examination of the doctrine of the inner sense and of Kant's successive attempts to get around the difficulties which it created for him (pp. 139–189). This part of the book is of exceptional value, especially in drawing attention to that remarkable passage in the Second Edition of the *Critique of Pure Reason* (B. 422 *n.*) where Kant tries to wriggle out of the toils by saying that, in affirming "I am," the subject apprehends itself "not as phenomenon, nor as thing in itself, but only as something that in fact exists." Ward acclaims this passage as definitely showing that "Kant has advanced beyond his critical standpoint as based on transcendental idealism" (*Study*, p. 170).

Another revision, as Ward rightly points out, which a thoroughgoing and consistent anthropomorphism would necessitate in Kant's

philosophy, is the cancelling of the distinction between *constitutive* categories and *regulative* ideas and principles. Whatever patterns the subject finds in its own nature for interpreting the world must all stand on the same level.

Of course, like all other interpreters of Kant, Ward can support his case only by a selective emphasis on appropriate texts. In this he shows extraordinary skill and ingenuity, and many a reader who may have considered himself, as I did, well acquainted with Kant's writings, will be surprised both at the fresh light in which familiar passages appear, and at the new significance which has been acquired by passages hitherto seemingly insignificant. It is this freshness, amounting in the aggregate to genuine originality in the treatment of Kant, which is so stimulating in Ward's book. Even where he travels over well-trodden ground—how well trodden only those can appreciate who have themselves followed in the tracks of *Kantlitteratur*—he manages to say things which arrest attention. The secret of his success is his mastery of his subject. No one nowadays can venture on an interpretation of Kant without a vast burden of technical learning. Ward has the learning, but he is not overwhelmed by it. On the contrary, he has that command of detail which enables him to single out the significant fact and throw it into bold relief, whilst courageously leaving aside the rest as irrelevant. In this respect, Ward's *Study* is a triumph of ripe scholarship.

There is, no doubt, justice in Norman Kemp Smith's criticism (*cf. Mind*, N. S., Vol. XXXII, No. 128, pp. 482 ff.) that Ward should have made some reference to alternative interpretations of Kant's philosophy, instead of ignoring them completely. A critical comparison of this sort would, indeed, have been welcome, but there would have been the danger of its smothering the admirable terseness of Ward's argument, as it stands, under a mass of polemics. Ward has chosen to argue with Kant and not with rival interpreters of Kant, and there is much to be said for his choice. At any rate, whether or no we are convinced by his line of interpretation of Kant—I should myself say that it represents one strain of Kant's tangled thought at the expense of other strains—we must all join in acknowledging that his book will rank as a classic among English treatises on Kant, and that no serious student of Kant can afford to pass it by. The inestimable service of Ward is to have given us a brilliant statement of a relatively unorthodox reading of Kant's philosophy, and one which had not hitherto been adequately presented to English-speaking students.

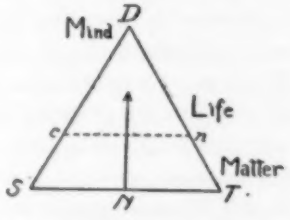
R. F. ALFRED HOERNLÉ.

THE UNIVERSITY OF THE WITWATERSRAND,
JOHANNESBURG.

Emergent Evolution. By C. LLOYD MORGAN, F. R. S. New York, Henry Holt & Co., 1923.—pp. viii, 313.

We have presented to us in this work the world-view of a trained biologist, and a biologist, too, who has long been interested in the larger problems of reality, a careful thinker and wide reader in the philosophical field. Too often do men of science develop an interest in the broader problems of the universe and, with little or no knowledge of the history of philosophical thinking, proceed to erect their world views on the narrow foundation of their single science, practically blind to the humanities, to man as he is in his nature and history, and to the richness of his social, political, æsthetic and religious life. But the intrinsic value of the world-view here presented is enhanced by the fact that the author is both a scientist and a philosopher.

Some of us who first came to know Lloyd Morgan years ago through his *Animal Life and Intelligence* are glad to meet him again in his *Emergent Evolution.* The world in which we find ourselves seems to be an orderly sequence of events, but this orderly sequence, historically viewed, appears to present from time to time something genuinely new. It is in the stress laid on the incoming of the new that we find the central feature of the theory and the justification of its name—'Emergent Evolution.' Salient examples of emergence are afforded in the advent of life, of mind, and of reflective thought. In the merely physical world emergence is seen in the advent of each new kind of atom and of each new kind of molecule. The world-sequence is no mere re-grouping of pre-existent events. A musical chord affords a newly emerged factor, something more than the additive resultant of the constituent tones. A pyramid is used by the author to symbolize his world view of emergent evolution. (The dotted line *c* . . . *n* indicates psycho-physical 'correlation' from bottom to top.) The



base line of the pyramid is lettered *S*, *T*, to remind us that space-time relatedness is of all aspects of nature the most widely extended, an all-pervasive, ubiquitous factor. Then come electrons, atoms, molecules, crystals, organisms with their vital qualities, then mind—

mere sentience perhaps at first, but in man self-consciousness and reflective thought emerge—and finally at the apex, in a few choice souls, possibly in only one case in all history, the realization of deity (*D*), not as being but as quality, the ideal height toward which all being strives. There is a *nisus* (*N*) which manifests itself in this movement from lower to higher.

Natural events at the level of mind are higher than those at the level of life, and these again higher than events at the level of matter; and there are innumerable intermediate levels. While our author admits that the terms 'higher' and 'lower' may rightly be used in other senses, the especial meaning which he urges here is that events of a higher level always 'involve' events of the lower. "Thus," he says, "for emergent evolution conscious events at the level of mind involve specific physiological events at the level of life, and these involve specific physico-chemical events at the level of matter. Events of any given level in the pyramid of emergent evolution involve concurrent events at lower levels. But besides this relation of 'involution,' there is another equally important relation of 'dependence' on which no less essential emphasis must be placed. When some new kind of relatedness is supervenient (say at the level of life), the way in which the physical events which are involved run their course is different in virtue of its presence—different from what it would have been if life had been absent. We may say, then, that this new manner in which lower events happen 'depends' on the new kind of relatedness, the newly emergent quality ... In a physical system wherein life has emerged, the way things happen is raised to a higher plane. In an organism within which consciousness is emergent, a new course of events depends on its presence. In a person in whom reflective thought is emergent, behavior is sustained at a higher level. If the quality of deity be supervenient, the plane of conduct is yet higher. Strike out deity, and conduct is no longer sustained at that level. Strike out reflective consciousness, and action is of a lower, impulsive order. Strike out all guiding consciousness, and behavior is that appropriate to the level of life. Strike out life, and the course of events drops down to the physical level. The new relations emergent at each higher level guide and sustain the course of events distinctive of that level which, in the phraseology I suggest, 'depends' on its continued presence. In its absence disintegration ensues."

What supervenes at any emergent stage of evolutionary progress Alexander would call a new quality, but Morgan prefers to call it a new kind of relatedness. The new relatedness, in order that there

may be a difference in the course of events, must be *effective*. For example, when mind emerges the mental guidance of events counts for progress and betokens a kind of relatedness that is effective. When it is present, changes occur which do not occur in its absence. The manner of 'go' in the enriched system is different. That is what is meant by speaking of guidance as dependent on the supervenient kind of relatedness at the level of mind. There are three different natural systems to be reckoned with—'mind-life-matter' systems, 'life-matter' systems, and 'matter' systems. May there not be a bottom level of mere 'space-time' entities, as Alexander holds? Morgan here parts company with Alexander. "I seek in vain," he says, "for evidence that spatio-temporal relatedness does exist apart from physical events. I can pierce no deeper than events which in their primordial form are not only spatio-temporal but physical also. . . . I regard the independent existence of such a physical world in its own right as not susceptible of proof under rigid philosophical criticism. Hence I accept it under what I speak of as acknowledgment. I accept it, in brief, as part of a constructive scheme of emergent evolution."

Turning our attention now from the base of this pyramid of nature to its apex, we discover deity, not deity as a being but deity as a quality, as an emergent quality of the highest natural systems that we know, *i.e.*, of some human persons. "With regard to deity, towards which we are working up, we must revert to the *nisus*. We have seen that out of one level in the hierarchy of levels a new kind of existence emerges. This fact of progressive emergence is *nisus* which is, therefore, something more than the *conatus* of Spinoza. . . . Within our reflective consciousness, within the minds of lowly organisms, and even of material things, it is felt as a *nisus* toward something unattained. . . . It seems, as I think on the evidence, that the higher we ascend in the hierarchy—and especially when we reach human persons—the emergent complexity is such that it appears justifiable to say that no two persons are quite alike. Each person is an uniquely individual product along one of very many lines of advance—say Shakespeare, Goethe, Newton and Darwin. If this be so, the *nisus* toward deity on its strictly central line should culminate in one unique person, at the very apex of the pyramid. If an impartial historical survey should lead to the conclusion that the *nisus* towards deity has culminated in one unique individual, there is, so far as I can see, nothing in the naturalistic interpretation of emergent evolution which precludes the acceptance of this conclusion."

In a passage quoted above the author speaks of accepting the independent reality of the physical world "under acknowledgment." This term is used to express a very important feature of his system. However perfectly the pyramid of emergent evolution may serve to describe our actual experience, if thought stops there the system is pure phenomenalism. But 'acknowledgment' discloses a fundamental reality. "By acknowledgment," our author says, "I mean acceptance of that which is, as I think, not susceptible of logical proof or disproof, on the grounds that such acceptance gives consistency to a scheme otherwise incomplete. It is imperative, therefore, to state quite clearly and frankly what is posited under acknowledgment. First, we acknowledge a system of physical events, intrinsically existent, as that which is basally involved in our completed scheme.—Secondly, we acknowledge God as the ultimate source on which emergent evolution is ultimately dependent. We ask: If the former of these be acknowledged, why not the latter, within our completed scheme which aims at a synthesis of interpretation and explanation?—But thirdly, we also acknowledge unrestricted correlation of the kind Spinoza postulated under his doctrine of attributes. Within the domain of both attributes there is continuous development under progressive emergence. Each ascending stage in the one attribute is evolved *with* that of the other. Neither is evolved *from* the other.—It is within such an acknowledged frame of reference, with its threefold relatedness of involution, dependence, and correlation, that world events take their course 'in space and time.' But dependence on God is *sub specie æternitatis*." Thinkers as widely sundered as Aquinus and Locke distinguish between what is contrary to reason and what is above reason. For both there is a realm of faith in the region above reason. So, also, for Morgan; 'acknowledgment' is his term for the faith by which he accepts his philosophical creed in those aspects which transcend logical proof. The very thoroughness of his naturalism makes him feel more keenly the need of some further explanation for the entire system of events. In fact it is only by 'acknowledgment' that he escapes subjective idealism. Thus he says, "The more adequately we grasp the naturalistic and agnostic position, the more urgent is the call for some further explanation which shall supplement its mere descriptive interpretation." To those who say, "Why not just accept what one finds with natural piety, therewith rest content, and go on one's way rejoicing?" he replies, "To go on my way rejoicing in the agnostic position I cannot. Presumably for better or worse I am that way constituted. At all events a supplementary concept

of Activity seems to me, being what I am, called for. I frankly admit that I accept Activity under what I have called acknowledgment. This means that it lies beyond the range of such positive proof as naturalistic criticism rightly demands. But I ask: Does it entail aught that is contradictory to the evidence?" "In any case I am prepared to face the risk. For me the acknowledgment takes the form of a belief in God. But here I am content to lay the main stress on the concept of Activity, and to state with the utmost brevity what even this bare acknowledgment appears to me to imply." "It will be clear I suppose from my whole treatment of Emergent Evolution that the operation of Activity—the word operation is here admissible—can nowise be restricted to any one level in our pyramid—either to that of life, or of mind, or of reflective consciousness, or of deity. Acknowledged Activity is *omnipresent throughout* if it be present at all. It will also, I suppose, be clear that the avenue of approach toward Activity in each one of us must be sought in some kind of immediate acquaintance within the current changes of one's own physical system. All other avenues of approach must be indirect as the outcome of reference. Within us, if anywhere, we must feel the urge, or however it be named, which shall afford the basis upon which acknowledgment of Activity is founded. What then does it feel like? Each must answer for himself, fully realizing that he may misinterpret the evidence. Without denying a felt push from the lower levels of one's being—a so-called driving force welling up from below—to me it feels like a drawing upwards through Activity existent at a higher level than that to which I have attained. Of course I am quite ready to admit that those who do have this feeling of being attracted by the Ideal, and who build an explanation thereon, may be mistaken. Hence my reiterated speaking of acknowledgment. What I here acknowledge is a really existent Ideal, independent of my emergent ideals and of the emergent quality of deity, in much the same sense as I acknowledge a physical world existent independently of my perceiving it. And should such acknowledgment be accepted, it is in line with the foregoing naturalistic treatment, though supplementary thereto, that such an Ideal must be conceived as not only higher but richer and fuller than the emergent quality of deity. If the latter be that which gives richness and fullness to certain human persons, the former, on which this depends, must be, under acknowledgment, not less rich, but more rich than this. It is no tenuous abstraction that is thus acknowledged."

"This Ideal within the human person but transcendent of his human level of deity is God—completing the scheme of relatedness from

above. But in and through Activity, universal from base to apex of the whole emergent pyramid, God is no less Immanent. Substantial to all the substantial gotogetherness which suffices for naturalistic treatment is the planful Activity in and through which its stuff has being and is held together. It is on this relating Activity in Substance that the schoolmen insisted; it is this that T. H. Green emphasized as the unifying Principle. Such is a crude and meager restatement of what has been far better stated by others. My aim is merely to show in what kind of way, on purely philosophic grounds, the scheme of emergent evolution, accepted without reserve, needs, as I think, to be supplemented, not superseded, so as to render it constructively complete."

In the closing chapter a distinction is drawn between empirical causation within the pyramid of nature and the Causality which is the source and directive Activity of the whole system of things. His final summary is as follows: "Emergent evolution works upward from matter, through life, to consciousness which attains in man its highest reflective level. It accepts the 'more' at each ascending stage as that which is given, and accepts it to the full. The most subtle appreciation of the artist or the poet, the highest aspiration of the saint, are no less accepted than the blossom of the water-lily, the crystalline fabric of a snow-flake, or the minute structure of the atom. Emergent evolution urges that the 'more' of any given stage, even the highest, involves the 'less' of the stages which were precedent to it and continue to co-exist with it. It does not interpret the higher in terms of the lower only; for that would imply denial of the emergence of those new modes of natural relatedness which characterize the higher and make it what it is. Nor does it interpret the lower in terms of the higher. If it be said that I have myself urged that how things go depends on the level of relatedness at which events run their course, this means the full recognition of the kind of effective relatedness which obtains at the level in question. It does not mean, for naturalistic treatment, dependence on kinds of relatedness *not yet emergent*. If physical changes be explained in terms of life; or physiological changes in terms of unreflected consciousness; or this in terms of guidance by reflective consciousness, when there is no sufficient evidence that these respectively higher kinds of relatedness have yet emerged, *then* the interpretation is not consistent with the tenets of emergent evolution; it is not in accordance with generalized description under causation. But if we may acknowledge, on the one hand, a physical world underlying the phenomenal appear-

ances with which we are acquainted by sense and, on the other hand, an immaterial source of all changes therein; if in other words we may acknowledge physical events as ultimately *involved*, and God on whom all evolutionary process ultimately *depends*, then we may with Kant but on different grounds accept both causation and Causality without shadow of contradiction. I claim that such procedure is legitimate in philosophy, and that it furnishes a consistent scheme. I have confessed my doubt whether either acknowledgment is susceptible of strictly logical proof. But in neither, so far as I can see, is there aught discrepant with the evidence. In regard to both one can only ask, Does the postulate so work that I am prepared to adopt it, and to run the risk of being mistaken in doing so? In my belief in God on whom all things depend, I am certainly not alone. I would fain not stand alone in combining with this belief, and all that it entails, that full and frank acceptance of the naturalistic interpretation of the world which is offered by emergent evolution. Emphasis on relatedness still seems to be essential; and this is implied in both involution and dependence Of God in isolation from the world—of God apart from what Mr. Alexander calls the emergent quality of deity supervenient near the summit of the evolutionary pyramid—I can form no adequate conception. . . . But if we acknowledge God, we nowise supersede interpretation under emergent evolution: we supplement it by adding something more in a richer attitude of piety. We supplement not supersede immanent causation as unconditioned in the universe—for as a whole it is subject to no extrinsic and transeunt conditions—by Causality in the Unconditioned. And the supplementary concept is not introduced at some higher stage—that of life or of consciousness or of reflective thought in man; it is present throughout at all stages. We do not assert that at some given level there is not causation, but Causality. We urge rather: no instance of causation, subject to limitations of time and space, save as the expression of Causality *sub specie æternitatis*."

The scientific mind seems often to take for its slogan, "Science is measurement." Every thing must be reduced to the categories of number and quantity. From this kind of world-view, which discloses nothing but quantities, it is a relief to turn to a philosophy of experience which depicts the world as a manifold of qualities. This system presents a world-picture which is not only qualitative in contrast to the quantitative, but is also qualitative in the sense in which qualities are contrasted with substance. It is adjectival rather than substantive. Qualities in relation are the only substance we find or

need to find in experience. May it not be that the noun substantive is just a grammatical prejudice? Even if the philosopher cannot give up his category of quantity altogether, it certainly is interesting to see what can be constructed out of qualities alone. Perhaps, however, in the second course of lectures Professor Morgan may disclose some reserve battalions of quantities and substances to reinforce his position.

There are several points which the critic might attack but for the feeling that criticism must be futile until the whole system is before him. The relation of the *nisus* and the universal divine Activity to the deity at the apex and to the whole series of successive strata in the pyramid remains to be expounded. Is each new stratum a special creation? We are promised, too, a further exposition of the part which psycho-physical correlation plays in the system. The author specifically disclaims all intention of explaining the higher in terms of the lower. Why then need we postulate any psychical correlate to the merely physical matter at the basis of the pyramid?

F. C. FRENCH.

COLGATE UNIVERSITY.

De l'explication dans les sciences. Par ÉMILE MEYERSON. Paris, Payot et Cie., 1921.—vol. I, pp. xiv, 338; vol. II, pp. 470.

All students of the logic of the exact sciences will welcome the appearance of the present work, by the well-known author of the important volume entitled *Réalité et identité*, first published sixteen years ago.[1] More especially will readers of the earlier book be pleased to find that M. Meyerson again employs the happy method of drawing on his vast store of historical (scientific and philosophical) material to illustrate the various steps in his argument, and that he still possesses the rare gift of assimilating this material so completely that it both adds force to an otherwise admirably clear form of expression and substantially increases the value of his contributions to learning in his chosen field. And quite apart from the main purpose of the book, it thus lends support to the thesis that there is a great benefit to be derived by the student of science as well as by the student of philosophy, from an historical study of the sciences. Such a study, for example, should do much towards developing a philosophical, wholesomely critical attitude on the part of all students with regard to the significance and limitations of the 'scientific method.'

This external similarity between the two books, moreover, is but the natural counterpart of an essential resemblance of content. Thus,

[1] Félix Alcan, Paris, 2*d* ed., 1912. *Cf.* this REVIEW, vol. XXIII, I, pp. 74–77.

the domain of research in both covers much the same ground, namely an investigation of the nature of our reasoning process as it reveals itself in its dealings with the natural order; and the aim of the investigation is also the same, namely the discovery and elucidation of the fundamental principles of thought as these are employed in the actual procedure of scientific inference. So also the conclusions to which M. Meyerson is convinced that both of his painstaking studies lead (as has already been made known to readers of this REVIEW),[1] are, baldly stated, that (1), all rational scientific inference aims at establishing a complete identity between antecedent and consequent, or between "what one demands explanation for . . . and some other thing somehow already known or given" (Lalande, *op. cit.*, p. 546); and that (2), at the same time, this very process of scientific inference paradoxically "implies something irrational in its subject-matter." The method, however, by which these now familiar conclusions are reached is quite different in the two works, and it is precisely this difference in treatment of one and the same thesis which constitutes the particular point of interest to readers of the present book.

In his *Réalité et identité* the author assumed the logical principle of identity simply as an heuristic guide, in order to demonstrate by an empirical analysis of scientific theories that his conception of the all-important rôle of this principle offered in truth the key to explain both the actual state of contemporary science and its temporal evolution. But in the present work he rejects this *a posteriori* method in favor of a direct, *a priori* argument, as more convincing and inclusive. In a word, "since the processus of identification appears now as implicit in the general tendency to deduce nature, to conceive of it as rational and necessary, our readers will perhaps find that the employment of such a principle in scientific inference is better grounded" (pp. viii-ix). Moreover, this more inclusive method of approach makes it possible to examine types of explanation which do not properly fit the framework of science as at present understood. These other modes are the so-called 'logical' explanations of nature, such, *e.g.* as the Aristotelian, and the 'nature philosophies' of certain German thinkers. In particular, a study of Hegel's *Naturphilosophie* and his *Logik* are, to M. Meyerson's mind, especially important from this point of view.

But before we can undertake to evaluate intelligently the author's critical interpretation of these logical doctrines, we must try to un-

[1] *Cf.* the article by André Lalande, on "Philosophy in France, 1921," in Vol. XXXI, 6, pp. 546–548.

derstand, a little more in detail, what precisely is involved in the concept of 'explanation.' The first task, indeed, which M. Meyerson evidently sets himself by the very title of his work—*De l'explication dans les sciences*—is to establish the fact that science really does seek to 'explain' phenomena, that is, to exhibit them as rational and necessary consequences of certain theoretical principles which the scientist is properly engaged in bringing to light. And as a necessary preliminary to the proper exposition of this positive thesis, the author ably criticises certain alternative conceptions of the purpose of science. For example there are those—like Mill and Comte—who assert that the sole aim of science is to 'describe' natural events by showing their relations to other events, and to express these relations in the form of empirical laws or generalizations from sense-experience. Again, there are those—like Bacon—who energetically maintain that science serves a merely practical purpose, namely the prediction and control of phemonena for human ends. But, as was shown in M. Meyerson's earlier work also, these views, when subjected to examination, prove to be self-confuting. One has only to observe the structure of scientific inference to see that it necessarily presupposes certain unifying principles, such indeed as the very idea of legality itself; while the bitter struggle between mechanists and finalists has no meaning unless it is taken to imply a transcendance of the empirical position (while doubtlessly including it), in search of an explanation "*en dehors de la loi, au delà de la loi*" (pp. 39 ff.).

What now, more positively, do we mean by explanation, and what are the necessary logical foundations of scientific inference, according to this conception of its primary function? First of all, M. Meyerson contends, to explain a natural event or phenomenon is to discover its causal antecedents: when we know the cause, the 'why,' of a phenomenon we consider it explained (p. 53). But by cause, in this sense of the word, we simply mean the rational ground, from which the observed consequent may be deduced, viewed as logically necessary. Obviously such a conception rules out the possibility of employing final causes in scientific explanation, and also excludes as insignificant the empirical interpretation of cause as that which is temporally earlier (pp. 55–66). An explanatory theory, then, is for M. Meyerson "a unifying conception, figurative or abstract, from which the phenomena may be viewed as susceptible of being deduced" (pp. 21, 66). And so the recognized authority of Descartes in these matters is grounded, plainly, upon his insight into the true purpose of modern science, namely the mathematical deduction of nature from general principles (pp. 100 ff.).

Now in this process of deduction, which for the author constitutes the ideal essence of scientific inference, certain concepts play a very important rôle. Even the most cursory study of mathematics and logic, for example, serves to demonstrate that identification is the typical or only standard of our thought. Yet to enunciate this principle in the form 'A = A' seems to indicate that it is only a tautology. "The truth is," M. Meyerson explains, "that the principle of identity, as we apply it in our reasoning, is never purely 'analytic.' No savant and no philosopher . . . ever had the idea of enunciating '*A* = *A*' in the sense of a simple tautology; for this enunciation could only be repeated indefinitely without the slightest progress in thought" (p. 130). Hegel very clearly emphasized this fact. He saw that we are obliged to affirm at one and the same time both the identity and the diversity of things, or of concepts in a judgment. And he further demonstrated, quite correctly, that this process leads to contradiction, and hence thought is forced to move forward, to progress. The real question then is, "How can the principle of identity serve as a 'synthetic' judgment?" And the answer, "Simply because it does not stand for an identity pre-existing in our mind and already recognized, . . . [but] rather makes the mind perceive one, or introduces one where we had not previously recognized its existence" (p. 136). 'Identification' then, is the word which M. Meyerson chooses to represent "not only the act by which we recognize the identical where it exists, but also the act by which we identify that which at first appeared to us not to be such" (p. 146). The characteristic of being an identity, that is, refers properly to the conclusion, rather than to the starting-point or to the intermediate propositions, of the process of inference.

But we shall better understand the significance of this idea when we have learned what is the second fundamental concept presupposed by all scientific reasoning, namely, substance (*chose*). For there can be no science, even of the 'empirical' variety, which does not employ this notion (Chap. I). More than that, each particular science seems to require the acceptance of special substances. Thus the determination of the absolute dimensions of a molecule, in physics, clearly indicates the presence there of a given something, a diversity which is definitive in the sense that it is not to be resolved into the space of geometry. "For though we may resolve the molecule into atoms and sub-atoms, it nevertheless remains a fact that at an average given distance from a central nucleus there is *something else*, to wit, space devoid of all matter (whatever may be the sense given this latter word), after which we come in contact with a new center" (pp. 216–

217). The phenomena of biology only go to imply the existence of other substances, for certain of these phenomena, such as sensibility, assimilation and growth, heredity, etc., are characterized by such uniqueness that it is very hard to conceive that they will ever be reduced to reactions of inorganic matter (Chap. VIII).

In view of their importance it may strike the reader as strange that the author should hereupon proceed to characterize the different forms which the concept of substance assumes in the several sciences as so many 'irrationalities' or 'diversities.' But this qualification is based on the ground that science is forced, by the very existence of such substances, to recognize certain limitations, to admit that there are various insuperable obstacles to a complete and rational explanation of nature. That is to say, this logically unavoidable concept of substance, when considered in conjunction with the concept of identification, at once gives rise to what M. Meyerson is pleased to call an "epistemological paradox" (Chap. XVII and *passim*). On the one hand, "it is manifest that the existence of . . . such irrationalities is the very condition for the functioning of our reason, since it cannot exercise itself except upon them" (p. 182). On the other hand, a realization of the goal of science, namely the completed theoretical explanation of all natural phenomena in the form of a mathematical deduction from certain principles, would "replace this infinitely diverse world which surrounds us by the identical in time and space, which [identity], evidently, can only be space itself" (p. 180. *Cf.* also *Réalité et identité*). And so far as the author can see, there is no escape from this limitation, involving the essential incompleteness of all attempts at explanation, at least so long as we confine our attention to the possible achievements of science.

But what of the attitude of philosophy in this matter? Does an examination of the various metaphysical attempts to carry out to the end an explanation of reality support or oppose our present conclusion? As a result of a careful analysis of various philosophical systems (*Cf.* chap. XV) such, for example, as positivism, atomism, mathematical idealism (*e.g.* Cassirer), and 'pan-mathematism' (*e.g.* Russell), M. Meyerson concludes that "science, if it seems to impose, so to speak, each of these metaphysical points of view in turn, also reveals the weaknesses of each of them in turn" (II. p. 219). That is to say, the only philosophical result which remains standing in the face of a criticism based on the actual achievements of science, is that philosophy, like science, is forced to admit that "reason is one, in all its forms," and that there is but one method for it to follow in

its contest with 'the nature of things,' namely the method of identification just described (*Cf.* II. pp. 186–220).

As a last resort to escape this result, we may examine the outcome of Hegel's attempted "*explication globale.*" In the encyclopædic work of this master of the art of dialectic we may perhaps find that the thus far persistent epistemological paradox has been solved, or at least that a possible method of its solution has been indicated. In some points, at all events, Hegel is in agreement with the author's own position. For, everybody must recognize that "at the basis of the pursuit of explanation by science there is evidently a postulate: namely the affirmation that nature's mode of behavior is conformable to the paths followed by our reason" (p. 86). And, as we have already hinted, Hegel's confidence in the dialectical method of pure logic is indeed partly justifiable, for he, too, saw that reason could not exercise itself except by presupposing the principle of identity in diversity and the moving force of contradiction. But in the present author's opinion Hegel's view suffers from a serious defect (II. p. 351). For Hegel was wrong in his account of how reason solves this conflict, and also in affirming that it takes place entirely within the bounds of reason itself, quite apart from existent objects—a something essentially diverse from reason for reason to exercise itself upon. This is most important, for we have here the source of all of Hegel's subsequent mistakes, such, for example, as the notion that reason alone has the power to develop the series of logical concepts, explicative of reality, independently of experience. M. Meyerson insists, on the contrary, that the conflict originates precisely in the meeting of sensation and thought—from the moment perception begins (II. p. 352). In other words, Hegel's attempt terminates in a 'panlogism,' in an endeavor "to resolve reality into an *ensemble* of purely mental and necessary concepts," regarded as the product of pure thought, operating according to an inherent dialectic, and beginning with certain necessary principles (II. pp. 18–20). Hegel nevertheless seems to have acknowledged that the empirical sciences prepare the content of raw experience in such a form that it may be admitted into philosophy, from which it would appear that philosophical science at least so far presupposes the empirical sciences of nature (II. p. 31).

The difference between the actual accomplishments of reason as revealed in science, and the ideals shared by Descartes, Kant, Schelling and Hegel, may be reduced, then, to this, namely, that whereas science is content to advance step by step, and frankly recognizes its starting-point as a something ultimately inexplicable, a 'given' which

cannot be included in the schema of reason, these philosophers were convinced that nature could not resist the power of the human mind, and that either they or their successors actually would succeed in rationalizing it completely. But even if this were possible, which it evidently is not, the result would be most unwelcome, since, according to M. Meyerson's interpretation of the nature and function of the principle of identity, it would mean, as we have seen, the complete resolution of all existential objects and phenomena into the blank form of empty space.

The unbiassed reader will find much to approve of in this able and comprehensive analysis of the method and goal of scientific inference. And in addition to the suggestiveness of M. Meyerson's point of view, he will be attracted by the spirit of utter candor and fairness which characterizes his exposition and criticism of such philosophical systems as that of Hegel. For once, we are presented with a discussion of certain concepts in this thinker's system which does not prematurely condemn them just because he happens to be their expounder. Certain objections and difficulties arise in the reviewer's mind, however, both when he regards M. Meyerson's work as a whole, and when he examines more particularly his interpretation of Hegel.

One may heartily agree with the author that the essential aim of science is 'explanation,' and that, logically considered, this type of explanation is in principle incomplete, simply because every science starts of necessity with something given and hence unaccounted for, so far as the immanent concepts of the science in question are concerned. One may further agree that what constitutes a scientific explanation is a unification of phenomena of a certain realm of experience, and that this systematization is effected by means of theoretical principles. But precisely in this connection we find it difficult to understand M. Meyerson's interpretation of the meaning of the principle of identity and its function in scientific inference. Is a phenomenon or a thing explained, in so far as science can accomplish its avowed purpose, simply by identifying it with something else which we at first viewed as diverse from it? If that were really the case it would seem that classification into more and more general genera and species would constitute the most perfect form of scientific reasoning, for in this manner, surely, the ideal of stripping off all the qualities of natural objects and reducing them to mere undifferentiated extension, space, could be most expeditiously realized, or at least most closely approximated. M. Meyerson himself insists, on the other hand, that each science is continually discovering new

'diversities,' new meanings, in its objects, in the course of its successive attempts to unify that realm of experience with which it specially concerns itself. As he says, "We shall always require new experiments, and these in turn will constantly raise new problems, and bring to light . . . new contradictions between our theories and our observations" (p. 225). But from this point of view, does it not seem more natural, more in accordance both with objective logical ideals and with the permanent fruits of scientific reasoning, to consider the 'diverse' as a most essential factor, rather than as an obstructive element, immanent in the process of explanation? By what right, indeed, may we designate as 'rational' a procedure which consciously envisages as its ideal, if also inaccessible, termination, the annihilation of what we set out to render comprehensible? If we may employ the analogy, we may say that our criticism of M. Meyerson's view would be similar to Plato's criticism of Parmenides. From Plato we learn that it is the function of science to 'save the appearances,' not by destroying them, but by organizing them into a coherent system. Now, surely, what the author calls 'irrationalities' simply because they show themselves ultimately capable of resisting the attempt to resolve them into the blank, undifferentiated identity of empty space, appear actually, from the objective standpoints and aims of the several sciences themselves, more comprehensible to our reason because imbued with a deeper meaning than empty space in such connections could possibly possess. The concept of organic matter, for example, seems as inherently rational, from the point of view of biological science, as some one of the spatial types constructed by geometrical science. For it is the function of biology to 'explain' vital phenomena, as it is the function of geometry to develop and make clear the content of the concept of mathematical space.

When viewed in this light, the present work in a very significant sense constitutes an important contribution to logical theory. Precisely because the author—like Parmenides—has so clearly demonstrated the inevitable result of the abstract interpretation of the principle of identity, culminating, as it does, in an insoluble 'epistemological paradox,' the very erroneousness of that interpretation is brought to the clearest possible expression. The plain, inescapable implication of M. Meyerson's exhaustive studies of the nature of scientific inference is that, in the last resort, we owe, to our ability to distinguish an element of diversity in every identity, the very integrity, as a positive manifestation of mind, of the various portions of the natural order. In other words, the postulate, recognized by the au-

thor, that our intelligence and the natural order are adequate to each other, owes its validity precisely to our ability to maintain this order in all its concreteness and variety.

M. Meyerson's study of Hegel has, indeed, convinced him that the structure of knowledge cannot support itself on the foundation of the principle of identity formulated in the shape of a mere tautology. Yet he still holds that the process of inference, especially in the form of a mathematical deduction, properly terminates in such a tautological statement or 'identification.' Fortunately, in his criticism of Hegel we can find the clue to the solution of what we may call an unintentional paradox within a paradox. And in this connection it will be necessary to keep in mind the conception of substance employed in the present work. For the author evidently associates a realistic view of substance, as affording the basis for sensation, with his interpretation of the meaning of the phrase 'identity in diversity,' which Hegel holds to be synonymous with the true principle of identity.

Now, however sufficient it may be for the immediate purposes of empirical science to view its conceptual substances as real existences, it is part of the function of a critical logic to examine the ultimate validity of such a view. What authority or justification, for example, has any science to assume the existence of a bare sensation, as—in M. Meyerson's phraseology—a something essentially diverse from thought? It certainly was not such a diversity which Hegel had in mind when he was insisting on the inseparability of the aspects of identity and difference in every judgment and in the structure of knowledge as a whole. Hegel was more firmly convinced than Kant that there can be no sensation apart from thought, and it was for this very reason that he held that all perception already implies the recognition of the principle of identity in diversity. Against this contention M. Meyerson has done nothing to justify his suggestion that thought alone supplies the factor of identity while sensation alone supplies the factor of diversity or substance. Indeed, he points out that the conceptual 'substances' which science constructs are more substantial, more persistent, than the naïvely accepted things of common sense (*Cf.* Chap. I, and *passim*). In other words, it is implied that atoms, electrons, and so on—the products of scientific reasoning—possess more reality than the substances of common-sense realism, precisely because they serve primarily to introduce order and systematic coherence into our experience, and not at all because of their thing-like factual existence. But when we have grasped this idea we have

in principle solved the 'epistemological paradox' by revealing as its basis the hypothetical assumption of a complete separation of sensation and thought, together with the ascription of all diversity to the former factor, and of the power of merely abstract identification to the latter.

There is still, however, what we may call a remnant of the paradox, barring our claims to have entirely solved the difficulties of principle involved in the 'rationalization of the real.' Every science, that is to say, makes assumptions which it cannot justify except by exhibiting the impossibility of doing without them in its attempt to organize and render coherent the various parts of our experience. Thus the geometrician assumes certain axioms or formulates certain postulates, and if asked whence they came, he will reply, "From a new insight into the implications of some earlier mathematical problems, or from the need of solving some contradiction which had arisen among the old concepts." But he never asks the Kantian question, which does not concern him *qua* mathematician, as to the 'possibility' of mathematical science in the first place. And it is precisely this question, as M. Meyerson himself realizes (*Cf.*, *e.g.*, chap. XV), which philosophy must both propound and find an answer for, while at the same time insisting on the validity, within its own sphere, of each particular science. Now Plato, Kant and Hegel, among others, seriously occupied themselves with this problem, and so far as they succeeded in solving it, on the basis of the sciences of their times, made intelligible and soluble in thought the last hard remnant of irrationality to be found in the realm of science as such. In so doing, however, they brought upon themselves the charge, which M. Meyerson reiterates, of constructing a purely intellectual schema, a 'panlogism' of experience. But surely this is a naïve, unjustifiable criticism, and indeed a double-edged one. For if we charge Hegel or Plato with such a fault, what must we say of our own endeavors directed confessedly towards the same end, namely an investigation of the nature of rational inference as revealed in the concrete achievements of thought, such, for example, as natural science? Surely it is high time that we abandon such self-confuting criticisms, in the interests of a higher appreciation of the accomplishments of reason and a better understanding of the relation of mind to the so-called external order.

H. R. SMART.

THE UNIVERSITY OF NORTH CAROLINA.

A Theory of Knowledge. By CHARLES AUGUSTUS STRONG. New York, The Macmillan Company, 1923.—pp. xii, 102.

This little book is a briefer sketch, with commentaries and corollaries added, of the philosophical conclusions already made familiar in Mr. Strong's more elaborate *Origin of Consciousness.* There is some advantage in this comparative brevity from the standpoint of exposition, in that the larger outlines of the theory are freed from much of the argumentative detail of the earlier volume; though the book is hardly the best avenue of approach to Mr. Strong's philosophy. The somewhat technical terminology presupposes the earlier and fuller discussion; and several important points are treated so cursorily as not to be wholly intelligible as they stand. To one, however, who is already acquainted with the point of view, the book will have a good deal of interest and value for the light it throws on certain difficult aspects of Mr. Strong's position.

The chief of these has to do with the notion of "immediate experience," as an object of knowledge on the one hand, and as affording a foundation for ontology on the other. In the present work it is here that the special interest of the author would appear to lie; and to this I shall confine my comments. It is perhaps unnecessary to add that the inability to follow Mr. Strong's doctrine here does not prevent a recognition of the vigor and originality of his thinking, or a substantial measure of agreement with his main contention.

Mr. Strong's metaphysics is roughly as follows: The real is made up of three aspects, all equally original, viz. 'feelings' which exist in 'space' and 'time.' In strictness only feelings "exist"; space and time are of the nature of "truth"—they are, that is, relations of order between feelings. Space and time are thus to be regarded as discrete and made up of points and instants; though they are also continuous in the technical sense in which continuity is definable as a "compact" series, between any two members of which there is an infinite number of other members. Feelings, which correspond to these points in space, are in a continuous process of change, to account for which we need to regard them also as centers of force or causation. Reality is, then, a mathematically continuous field of ever-changing points and instants, characterized by feeling or "luminosity." Here and there within this field a pattern of a certain kind arises, and this is what we know as a nervous system, or a mind, to which other reality may become an "object;" potentially it may arise anywhere, and the world may thus be defined as a psychic continuum out of which minds are evolved.

It is in this connection that, in the present essay, Mr. Strong is most interested in exploiting his theory, more adequately presented in the *Origin of Consciousness*, that knowledge is the combination of immediate experience or feeling with organic response, and that it is only the resulting totality that can be "given" as a datum. An infinity of discrete points is not what we ordinarily think we recognize in a qualitatively toned sensation, though that is what the immediate experience really *is*. But the contradiction is resolved when we realize that what is apprehended in the awareness of a feeling is not the immediate experience by itself, but the combination of feeling with a physical reaction; and the resultant datum does not therefore need to be identical with the experience in its own right. More particularly, 'unity' and 'variety,' as distinguished in introspection, are characters due not to the feeling, but to the reaction; that being apprehended as a unity to which we react as a whole, and only such distinctions being recognized as are capable of calling forth a separate response. The awareness of a sensation, then, must be sharply discriminated from its existence. Feeling as such is not experienced or felt, but is just experience or feeling; and the adequacy of the knowing or awareness may vary indefinitely with the fineness of discrimination. In this way the supposed testimony of psychological introspection against a metaphysics of panpsychism has been discounted. Experience may be regarded as, in its own nature, a *continuum* of infinitesimals; the cutting off of one portion from another to form a unity, as well as the extent to which analysis is carried, being due to the responding mechanism.

This very ingenious solution suggests to me several queries. How, in the first place, are we meant to identify the physical reaction which helps to constitute introspection? It is no doubt true that some physical change occurs when attention is turned from objects to sensation or feeling; but can this be taken offhand as performing the same function that muscular response does in our dealings with the outer world? Certainly we do not in the ordinary sense of the word 'act' toward introspective data *as* we act toward outer objects; and it is only through this reference to overt action that the "vehicular" theory of perception gets its plausibility.

In another way also I have found it difficult to verify the analysis. The thesis that the addition of an active movement is enough to create a new content of knowledge out of points of luminosity or feeling, is not unplausible as an explanation of the particular characteristic of the object of introspection which Mr. Strong has chiefly in his mind;

but its application to the *qualitative* variety of experience is much less evident. A movement of response may give "unity" to a particular section of a field; but movement as such does not explain the appearance, for example, of color in what is not colored before. I am not certain, indeed, that I may not have misunderstood Mr. Strong's position here. It is possible that he supposes feelings themselves, as existences, to possess all sorts of qualities—that the reality of a sensation of redness is an infinity of separate rednesses, or of sweetness an infinity of sweetnesses. But nothing that he has to say leads me to think this is his meaning, and indeed the contrary often seems distinctly to be implied; a feeling has luminosity and force, and relations of space and time, and that is all. To be more accurate, Mr. Strong appears to me to do away with qualitative properties of any sort in his theory of introspection, while nevertheless retaining these by implication in his theory of perception. For granting, as we must, that the world *appears* to have qualitative essences, their presence in knowledge can hardly be accounted for if we deny altogether to sense-feelings the qualities traditionally ascribed to them by the empiricist. If a true description of their nature has no place for such terms, any justification of "appearances" becomes a difficult if not an insoluble problem. And if a mind is really a pattern in the nervous system, if an animal all nerves and no feelings could still be said to "know" the object to which it reacts (p. 35), and if the addition of a further external relation of movement supplies all that is meant by "awareness" (pp. 11–12), it is at best only the very obscure property of "luminosity" that stands between Mr. Strong's theory and the materialism which he repudiates.

The same difficulty may be approached from another angle. Even if we suppose, as Mr. Strong formerly did, that all introspection involves a memory image of an experience now already past, so that the feeling introspected and the feeling that serves as a vehicle of knowledge are numerically two, it seems a little arbitrary to hold that these would show any notable difference of qualitative nature. An image is commonly and naturally thought to copy its immediate original rather closely. As a matter of fact, however, Mr. Strong has now given up his earlier position and grants that under certain conditions we can introspect a feeling at the very moment of its existence; and it is just because in such a case the feeling known and the vehicle of awareness are identical, that he considers we have the right to attribute two properties of the latter to the former also—spatiality, and luminousness or "feelingness" (pp. 30, 64). But if on such grounds

the appearance of spatiality is allowed to have objectivity, why should we refuse to grant the same thing to smell or color, which equally seem to be there; while in the case of "feeling," what actual content does it after all retain when we strip it of its various qualitative natures? I am not aware that Mr. Strong attempts anywhere to answer such questions; it is always to the quite different properties of unity and variety that he turns, to justify his contention that the datum of knowledge may contain elements not present in the feeling that is known.

That Mr. Strong's theory ends in "agnosticism" I do not like to say, since this is a charge so easy to make against practically every form of modern philosophy that it is coming to lose its point. But it is a question whether his own disclaimer of agnosticism distinguishes sufficiently between two things. What he means primarily to insist upon is our right to recognize a real world not identical with our knowledge of it—a world whose 'existence' is guaranteed through the 'activity' element involved in knowing. But the 'nature' of this world is left in a form of which it appears impossible to give any concrete account in detail. Even "immediate experience" translates itself into terms as far removed from what it 'seems' to be as are the older and more familiar distinctions between appearance and reality; and in particular its formula depends upon a logical concept which cannot be verified in 'experience' at all, and which expressly displaces and condemns the sense of continuity from which life gets most of its practical significance.

A. K. ROGERS.

NEW HAVEN, CT.

NOTICES OF NEW BOOKS.

The Idea of Immortality. The Gifford Lectures Delivered in the University of Edinburgh in the Year 1922. By A. SETH PRINGLE-PATTISON. Oxford, At the Clarendon Press, 1922.—pp. xii, 210.

A succession of distinguished works, very largely volumes of Gifford Lectures of the last fifteen years, bear witness to the profound interest of British thought in the problems of personality, value, and destiny. The "Symposium of the Aristotelian Society" in the summer of 1918, led by Professors Bosanquet, Pringle-Pattison, Stout, and Lord Haldane, is characteristic of a larger volume of lively discussion of these fundamental problems. Professor Pringle-Pattison's Gifford Lectures on the *Idea of God* and his critique of Bosanquet, served to give rise to the "Symposium," and the volume before us may be regarded as a sequel of the earlier work. It is the elaboration of a shorter course of six Hibbert Lectures delivered in Oxford in the Lent Term of 1921.

Professor Pringle-Pattison's introductory survey of primitive ideas serves to reveal his method of attack. The argument from the *consensus gentium* may be unreliable and confusing, but we may not ignore the developing consciousness of the self and its destiny which the untutored mind seeks to express by its flimsy reasonings. Even Plato's formal arguments are unconvincing; yet truly profound in his thought is the recognition of the essentially spiritual, divine nature of man, his confidence that when the good man dies "he will find himself in the same divine fellowship to which he has been admitted here" (p. 55).

In his third and fourth Lectures, devoted to the problem of mind and body, Professor Pringle-Pattison examines briefly the Aristotelian doctrine, traces its adventures in medieval thought, and considers several modern theories. The traditional argument from the soul's substantiality and simplicity is futile: the soul is no irreducible core or kernel of reality, material or immaterial. Were it thus one and simple, its existence, however endless, would be absolutely without value. In opposition to substantialism, whether animistic or materialistic, Professor Pringle-Pattison is insisting throughout on the self-conscious spirit, the living self, the coherent mind and character that "has its face consistently turned to the future" (pp. 85 f).

A consciousness of continuity is essential rather than a bare continuance of substance. Hence we perceive the inadequacy of doctrines of incarnation and Karma. Is this former glutton punished by being now reborn as a hog? But the penal purpose of the incarnation fails, for "to be a hog is no punishment or degradation *to a hog*" (p. 111). So in Dr. McTaggart's theory, the substantial soul may, in a plurality of lives, learn the lessons of Galahad and of Tristram and of Caradoc. But the identity is illusory: "Galahad knows nothing of Tristram, nor Tristram of Galahad, nor either of them anything of Caradoc,

nor Caradoc of either" (p. 127). Schopenhauer had regarded substance as synonymous with matter; so Professor Pringle-Pattison observes that the notion of a substantial soul "betrays us easily into a thinly disguised materialism" (p. 72). The doctrine of a fixed number of souls and the "Malthusian anxieties about the over-population of the spiritual world" (p. 129) are due to this mistaken notion of the soul as a *thing*.

Do we desire immortality? Brahman and Buddhist preached the glad tidings of absorption and extinction, and, while in the West eternal life has usually been rated a boon, even here the endless continuance of the individual has proved a notion staggering to many. Bare aimless eternity is futile; nor can the human spirit find satisfaction in the eternal pursuit of an ever-receding goal. "Unless we can rise to some experience satisfying in itself, we are not likely to reach a tenable theory of immortality" (p. 135). Hence according to some theologians and philosophers, we must ascend from the implications of the time-process, of which morality is the typical expression, to religion. To Schleiermacher the true immortality is not in a hereafter but "in the midst of finitude to be one with the Infinite, and in every moment to be eternal" (p. 135). And with Spinoza to view things *sub specie aeternitatis* means to see them as a rationally necessary system. Art and religion may yield us similar wisdom. "A thing of beauty is a joy forever." Schopenhauer found the essence of art in desireless contemplation, in the deliverance from the stream of time. So in the New Testament 'life' and 'death' are used to describe present spiritual states. "To be carnally minded," St. Paul writes, "is death; but to be spiritually minded is life and peace" (p. 143).

The bearing of eternal life thus conceived upon the question of personal immortality in the more usual sense of the term is the topic of Lecture VIII. Among those content with present participation in the eternal life, Spinoza is chief. In our time Bosanquet has been preëminent in emphasizing the abiding of the self in the Absolute rather than the immortality of the finite individual. The antithesis of moral striving and religious surrender is fundamental, and Bosanquet's firm adoption of the view he styles religious indicates his metaphysical disdain of the finite individual, an attitude against which Professor Pringle-Pattison, here as elsewhere, wages a vigorous and telling polemic. Persons are real in their own right; their capacities of self-conscious experience are a sheer enrichment of the world and not tedious variant utterances of an eternally same Absolute. The true universe of religion is the world of God and man, not of the impersonal Absolute and its appearances.

In the closing two lectures Professor Pringle-Pattison reviews some arguments and draws his own more general conclusilons. The moral argument, he notes, has usually concentrated man's attention on punishment; but along the path of punishment a reasonable theory of immortality is not to be reached, nor in general along the line of merit. The moral order does not require immortality to make it worthwhile; but there is inhumanity in the view that the universe moulds souls so painfully only to break them up again. Moral value demands further scope, infinite prospect.

The question of natural immortality assumes a new guise when viewed from the angle of value. Personality, character is something that must be won before it can lay claim to conservation. "What is given is simply the opportunity" (p. 196). "The 'hope of immortality' is not to be regarded like the scientific prediction of an eclipse, or any other event in the temporal series. It is the supreme assertion of spiritual values, above all an assertion of the infinite value of the human spirit that has realized its vocation and entered into its heritage. And just for that reason the life beyond remains something which we cannot translate into concrete detail" (p. 206).

"Unbelief in death," Edward Caird wrote, "seems to be the necessary characteristic or concomitant of true spiritual life." This sentence, which one reads on the last page of Professor Pringle-Pattison's book, is characteristic of its central line of thought. The life of the spirit is no bare substantial entity, material or immaterial, no mere natural process, not episodic and incidental in the course of the universe. It is essentially an attainment of eternal value. Unable to peer beyond the barrier of death, the spirit of man is yet committed to its own eternal quest and cannot accept the barrier as final.

This is a noble book: sane, spiritual, serene. Professor Pringle-Pattison's mature thought on a subject of profound human interest has been expressed with a dignity and a sustained charm of style which more than once reveal the sage as a seer and a poet.

RADOSLAV A. TSANOFF.

THE RICE INSTITUTE,
HOUSTON, TEXAS.

The Measurement of Emotion. By W. WHATELY SMITH. New York, Harcourt, Brace and Company, 1922.—pp. 184.

This monograph, an addition to the *International Library of Psychology, Philosophy and Scientific Methods*, records a series of experiments designed to "measure the emotions" by a "method which is highly original and of very great value" (William Brown, "Foreword," p. 8). Since space does not permit an extended discussion of Mr. Smith's investigations, we may content ourselves here with an examination of his method, as it is exhibited in the first—and by far the most important—of his experiments.

From 50 subjects (all "drawn from the educated classes," p. 36) Mr. Smith obtained the following data: (1) a series of galvanometer readings, showing changes of resistance in the left hands of his subjects, to the passage of an electric current, said changes being elicited by vocal presentation of a list of 100 stimulus-words (Jung's, as translated by Dr. Eder); (2) a list of reaction times recording, in 1/5 seconds, the interval between stimulation and response in the case of each word, for 49 of his subjects; (3) a record showing, for 22 subjects, whether, given Jung's reproduction test, the right or wrong association was given; (4) a set of figures showing the efficiency with which 41 of his subjects remembered a selected list of 30 of the stimulus-words, when measured by a time-interval memory test.

It will readily be seen that the only approach to a "measurement of emotion" in this experiment is that afforded by the galvanic reflex. A bodily change of some sort is, most assuredly, measured. But we may seriously question whether the intensity of this bodily change is a true index of the intensity of an accompanying emotional state. We may, indeed, question whether *any* characteristically emotional states were aroused by the stimuli, for such introspective data as are recorded go to show that "the effect, when consciously perceived at all, appears to be of a generalized and unspecific character" (p. 28). The author's remarks would seem to indicate that his subjects were not conscious of any emotional reaction, but experienced no more—at most—than a certain 'excitation' or 'startledness.' Given a bodily change whose "precise nature is not yet altogether clear" (p. 25), and a mental reaction, presumably parallel thereto, of a "generalized and unspecific character," it is difficult to find ground for Mr. Smith's confidence that the galvanometer deflections are a "true measure of the intensity of emotion aroused" (p. 28). This is something new in psychophysics.

But, given the four data-lists noted above and the assumption that the swing of the galvanometer-needle measures the intensity of the emotion aroused by the stimulus, Mr. Smith proceeds to deduce a whole series of conclusions. It should be understood that this first experiment was "undertaken with the object of investigating the influence of affective tone on the process of memory by as quantitative and unambiguous a method as possible" (p. 29), and that the first three of his methods were used "for detecting and estimating the affective tone evoked" (p. 31), while the fourth measured the memory-value of thirty of his stimulus words. The most important of the conclusions deduced by Mr. Smith, after an elaborate mathematical treatment of his data, is that "there are . . . two kinds of affective tone of opposite properties as regards memory. These are named 'positive' and 'negative' tone" (p. 56).

Mr. Smith supports this conclusion by showing that when the galvanometer readings and the memory-values are plotted together it is found that both those words remembered easily (most frequently) and those completely forgotten are accompanied by galvanometer readings appreciably greater than those of words remembered only indifferently well. The emotional tone evoked by the word, then, acts to either facilitate or hinder its reproduction. The unemphasized implication is that a word will not be remembered unless it excite *some* emotional response (see p. 46), and we are to add to this the explicit finding that an intense emotion may cause the word either to be forgotten or to be remembered. Thus Mr. Smith adds, to Jung's discovery that emotional tone "represses" some words, the additional discovery that it assists in the reproduction of others. A list on page 38 shows that it is words with naughty associations that cause the greatest galvanometer deflections, and this, together with Mr. Smith's conclusion, may serve to explain why it is that these words are remembered by human kind with such facility, when they are not repressed. Positive and negative affective tone, it should be observed, are not identified with pleasantness and unpleasantness (p. 45). Words that are

forgotten have an intense and 'negative' tone, and those remembered an intense and 'positive' tone, and neither tone nor mnemonic property can be otherwise identified.

The author exhibits great resourcefulness in the use of the statistical methods which are so rapidly carrying psychology into the ranks of the exact quantitative sciences. When no direct concomitance is to be found between the galvanometer deflections induced by words and their ascertained memory-values, he proceeds by weighting (p. 35), by drawing smooth curves (p. 40), and by a treatment of the galvanometer readings which eliminates variations due to the different *intrinsic* resistances of his subjects (p. 36), to force his data to yield up their hidden meanings. The reader, however, is compelled to place rather more trust in Mr. Smith's judgment in the manipulation of the material than he is likely to find desirable. The appropriateness of many of the steps taken is far from obvious.

In Chapter II Mr. Smith experiments with nonsense-syllables and reaches conclusions analagous with those recorded above (p. 56). There are, however, significant and interesting differences. Chapter III, on "Some Properties of Complex Indicators," is based on the same data as the first experiment. The truth of the positive-negative affective-tone theory being assumed (p. 59), it is demonstrated that "disturbance in reproduction is by far the best complex-indicator" (p. 78). Other conclusions are also deduced. Chapter IV, treating of "The Relation Between Complex-Indicators and the Form of the Association," is a working over of the same material with regard to verbal association. Certain results of chief interest to psycho-analysts are recorded. Some experiments on "Individuality" are recorded in Chapter V, in which the consistency of a subject's galvanometer deflections when the same word-list is repeated at intervals is the topic of discourse. Chapter VI treats of the effects of alcohol on the galvanic reflex. In the first and last chapters of the book the author discusses his own and other theories of affective tone.

These experiments are novel and interesting enough to arouse considerable curiosity as to the validity of their results. It is to be hoped that before long they may be checked off against the results of other experiments conducted with the same apparatus and technique. So far, the reliability of the galvanic reflex as a measure of the intensity of emotions remains questionable.

D. T. HOWARD.

NORTHWESTERN UNIVERSITY.

Aberrations of Life. By J. C. MCKERROW. New York, Longmans, Green and Co., 1923.—pp. 107.

Aberrations of Life is an attempt to describe certain forms of psychical abnormality in terms of the theory set forth in the writer's previous book, *The Appearance of Mind.* This theory, as is suggested by the title, consists in the denial of validity to the concept of subject or person, the rejection of consciousness or mind as a distinct entity or as a valid category.

Having "abolished personality," Mr. McKerrow (p. 37) defines a person as "the series of reactions that constitutes the history of this or that organism,

. . . in a unity," and then proceeds to play fast and loose with the unity. "Caesar was not a Personality. He was a series of more or less consistently related reactions." As a fundamental basis, Mr. McKerrow falls back on the concept of "laws of life" or of "Life" itself. In a characteristic sentence he argues (p. 31), "If Life has painted the lily, and not the lily itself, if Life has built the sparrow's nest and the bee's honeycomb, can Life not build the philosopher's system and paint the poet's fancy?" In the description of abnormal mental states, however, it seems impossible to dispense with the concept of the individual as a whole. Dissociation is said to be "meaningless" (p. 58), but it indicates the failure of the individual to bring his past experience to bear on his present situation. The automatism of hysteria, of somnambulism, of hypnosis, is an action "divorced, temporarily, from the whole individual" (p. 61).

The value of this book consists in its being part of the broad movement of reaction against barren soul-body parallellism in favor of some more vital conception of integrated unity. Its failure is perhaps due to an insistence that this unity shall be all of one type, combined with some uncertainty as to the desirable type. On page 68 the author says Space-Time is "the stuff of which we are made;" on page 18, that "a qualitative change in the Subject-Object relation is always reducible in theory to a quantitative change in the Organism-Environment relation." But in practice this relation is not thus measurable. "You cannot measure Interest, say hunger, which is interest in food." It is impossible (p. 6) to "reduce physiological activity to physico-chemical." The same uncertainty occurs as between the physiological and the psychical type of unity. On page 28 we are told, "Organisms are not persons attending to what they are interested in, they are bundles of appropriate tendencies-in-respect-of-changes;" yet the discussion of the unconscious introduces various moralizing reflections on the proper method of dealing with undesirable tendencies, which seem to find no place either in space-time relations or in physiological sequence. For Mr. McKerrow the solution of all difficulties lies in the conception of the Life-Force, undefined, undetermined, omnipotent.

FLORA I. MACKINNON.

TORONTO, ONTARIO.

The following books also have been received:

The Reconstruction of the Spiritual Ideal. By FELIX ADLER. New York and London, D. Appleton and Company, 1924.—pp. 218. $1.50.

The Basis of Social Theory. By ALBERT G. A. BALZ; with the collaboration of WM. S. A. POTT. New York, Alfred A. Knopf, 1924.—pp. xxx, 252.

Recent Changes in American Constitutional Theory. By JOHN W. BURGESS. New York, Columbia University Press, 1923.—pp. xi, 115. $1.75.

Law and Freedom in the School. By GEORGE A. COE. Chicago, The University of Chicago Press, 1924.—pp. ix, 133.

Causation and the Types of Necessity. By CURT JOHN DUCASSE. Seattle, University of Washington Press, 1924.—pp. 132.

Theories of Memory. By BEATRICE EDGELL. New York, Oxford University Press, American Branch, 1924.—pp. 174. $2.50.

The Ethics of Hercules. By ROBERT C. GIVLER. New York, Alfred A. Knopf, 1924.—pp. v, 204.

General Introduction to Psychology. By COLEMAN R. GRIFFITH. New York, The Macmillan Company, 1924.—pp. xv, 513.

Ethics and Some Modern World Problems. By WILLIAM MCDOUGALL. New York and London, G. P. Putnam's Sons, 1924.—pp. xvii, 256. $2.50.

The Basis of Freedom: A Study of Kant's Theory. By E. MORRIS MILLER. Sydney, The Australasian Association of Psychology and Philosophy, 1924.—pp. 84. 3sh.

Contemporary British Philosophy. Edited by J. H. MUIRHEAD. New York, The Macmillan Company, 1924.—pp. 432. $4.50.

Hearing. By ROBERT M. OGDEN. New York, Harcourt, Brace and Company, 1924.—pp. xiii, 351.

The Education of Gifted Children. Part I, of the Twenty-Third Yearbook of THE NATIONAL SOCIETY FOR THE STUDY OF EDUCATION. Bloomington, Ill., Public School Publishing Company, 1924.—pp. 443.

The Philosophic Basis of Moral Obligation. By J. E. TURNER. London, Macmillan and Company, 1924.—pp. xii, 280. 12sh., 6d.

Le Travail Intellectuel. Par ALBERT CIM. Paris, Félix Alcan, 1924.—pp. 188. Fcs. 8.

La Philosophie de Saint Anselme. Par CHARLES FILLIATRE. Paris, Alcan, 1920.—pp. xv, 476. Fcs. 14.

Les Origines de la Pensée. Par PAUL GIRAN. Paris, Alcan, 1923.—pp. 184.

Trente Ans de Vie Francaise. III. Le Bergsonisme. 2 tomes. Par ALBERT THIBAUDET. Paris, Editions de *La Nouvelle Revue Francaise*, 1923.—pp. 256; 256.

Essais de Montaigne, Nouvelle Edition. Tome III. Par PIERRE VILLEY. Paris, Alcan, 1923.—pp. 586. Fcs. 12.

Lucius Annaeus Seneca: Philosophische Schriften. Übersetzt von OTTO APELT. Zwei bändchen. Leipzig, Felix Meiner, 1923.—pp. xxiv, 266; 240. Paper 90¢, cloth $1.17, each.

Grundlinien Eines Philosophischen Systems. Von CHRISTOPER J. BOSTRÖM. Übersetzt von REINHOLD GEIJER und HANS GERLOFF. Leipzig, Meiner, 1923.—pp. xxxix, 302. Paper 72¢, cloth 99¢.

Theorie der Dialektik. Von JONAS COHN. Leipzig, Meiner, 1923.—pp. iv, 355. Paper $1.35, cloth $1.80.

Das Chaos als objektive Weltregion. Von FRIEDRICH GRAVE. Berlin und Leipzig, Walter de Gruyter und Co., 1924.—pp. x, 73. Mk. 2.50.

Der Aufbau der Systeme. Von KARL GROOS. Leipzig, Meiner, 1923.—pp. xi, 319. Paper $1.17, cloth $1.62.

Kategorienlehre. Von EDUARD VON HARTMANN. Herausgegeben von FRITZ KERN. Drei bände. Leipzig, Meiner, 1923.—pp. xx, 220; xvi, 224; xvi, 228. Paper 63¢, cloth 90¢, each.

Jensener Logik, Metaphysik und Naturphilosophie. Von G. W. F. HEGEL. Herausgegeben von GEORG LASSON. Leipzig, Meiner, 1923.—pp. xlviii, 392. Paper $1.62, cloth $1.98.

Jean Paul und seine Bedeutung für die Gegenwart. Von JOSEF MÜLLER. Leipzig, Meiner, 1923.—pp. viii, 396. Paper $1.26, cloth $1.62.

Vorschüle der Ästhetik. Von JEAN PAUL. Herausgegeben von JOSEF MULLER. Leipzig, Meiner, 1923.—pp. xxxii, 526. Paper $1.80, cloth $2.16.

Mose Ben Maimon: Führer der Unschlüssigen. Von ADOLF WEISS. Leipzig, Meiner, 1923.—pp. cccxxii, 394.

Chronicon Spinozanum: Tomus Alter. Hagae Comitis, Curis SOCIETATIS SPINOZANAE, MCMXXII.—pp. xxv, 278.

NOTES.

To the Members of the American Philosophical Association:

In their appeal for the aid of Austrian scholars, the Commission on Intellectual Coöperation of the League of Nations (Professor Bergson, Chairman) declared:

"No greater damage can threaten a civilization than the successive destruction of its homes of learning. It is beyond dispute that the war and its economic consequences have brought intellectual life in one entire region of Europe into an extremely precarious position. . . .

"In coming to the assistance of Austria and of other nations whose intellectual life is in danger, you will be strengthening that sense of professional brotherhood which should unite all brain workers, you will be taking effective and practical action to promote intellectual coöperation, and above all, you will be helping to support civilization in the struggle against the most serious peril which threatens it."

That this need is still urgent in Germany and throughout Central Europe is emphasised in the Commission's Report to the League of Nations in September, 1923.

At the Annual Meeting in 1922 both Divisions of the American Philosophical Association voted to aid German and Austrian Philosophy. Inquiry has shown that the most effective way in which we can do so is to send recent American philosophical publications which, owing to the impoverished condition and the unfavorable rate of exchange, are not otherwise procurable in Central Europe. For this purpose we appeal for further gifts of money, books, or current philosophical periodicals, which will be forwarded free of charge to the *Notgemeinschaften* of Germany and Austria. Books may be sent and checks drawn to the order of *Professor Morris R. Cohen, College of the City of New York.*

For the Committee on International Coöperation,

A. C. ARMSTRONG,
MORRIS R. COHEN,
E. B. MCGILVARY.

The twenty-fifth annual meeting of the Western Division of the American Philosophical Association was held on Thursday, Friday and Saturday, April 17, 18 and 19, at the University of Chicago.

As announced in the REVIEW of September 1923, an International Congress of Philosophy is being held at Naples, May 5–9 inclusive, in celebration of the seventh centenary of the University of Naples.

The fourteenth joint session of the Aristotelian Society and the Mind Association will meet at Reading, England, July 11–14. The Congress will be held under the auspices of the University College, Reading. Accommodation

for guests will be provided, for men at St. Patrick's Hall and Wantage Hall, for women at St. Andrew's Hall. Members of foreign Philosophical Societies will be granted full privileges. Application for accomodation should be addressed to Mr. A. W. Wolters, M. A., University College, Reading. Inquiries concerning the meetings, papers and discussions should be addressed to Professor H. Wildon Carr, Honorary Secretary of the Aristotelian Society, 107, Church Street, Chelsea, London, S. W. 3.

Professor Alfred North Whitehead, Hon. D. Sc. (Manchester), Hon. LL.D. (St. Andrew's), Fellow of Trinity College, Cambridge, and Professor of Applied Mathematics in the Imperial College of Science and Technology, has been appointed Professor of Philosophy at Harvard University. He will begin his work in September 1924, and will give courses on Metaphysics, Logic, and the Philosophy of Science.

Dr. T. H. Proctor of Williams College has been appointed Associate Professor of Philosophy at Wellesley College.

We give below a list of articles in current philosophical journals:

THE HARVARD THEOLOGICAL REVIEW, XVII, 1: *Gustav Krüger*, Literature on Church History, 1914–1920, III: The Reformation and the Counter-Reformation; *Cary C. Moody*, The World Enigma; *Henry Preserved Smith*, Frazer's "Folk-Lore in the Old Testament."

THE JOURNAL OF RELIGION, IV, 2: *Eugene W. Lyman*, The Place of Intuition in Religious Eperience and its Validity as Knowledge; *Frank Eakin*, New Translations of the New Testament; *Maurice B. Reckitt*, The Christian Social Movement in England; *Donald W. Riddle*, The Physical Basis of Apocalypticism; *Archibald Gillies Baker*, The Religious Ideals of the Student Volunteer Movement.

THE INTERNATIONAL JOURNAL OF ETHICS, XXXIV, 3: *Israel Levine*, Reason and Morals; *Edith Ayres Copeland*, The Institutional Setting of Plato's *Republic; Maurice Finkelstein*, The Functional View of Legal Liability; *A. P. Brogan*, Group Estimates of Frequency of Misconduct; *Rexford Guy Tugwell*, The Distortion of Economic Incentive; *Norman Wilde*, The Meaning of Rights.

THE HIBBERT JOURNAL, XXII, 3: *The Editor*, A Good Word for our "Present Social System;" *J. H. Muirhead*, The Spirit of Democracy; *Gilbert Norwood*, Organization; *James Marchant*, Helping Civilization; *Meyrick Booth*, The German Youth Movement; *J. W. Scott*, Unemployment: A Remedy; *Arthur J. Brock*, Dreams, Folklore, and our Present Spiritual Distress; *W. R. Bousfield*, Human Survival; *E. W. Adams*, The Death of Socrates: A Point of Contact between Two Worlds; *W. B. Selbie*, Theology and the Thought of Today; *J. W. Poynter*, The Present Position of Roman Catholicism in England; *R. E. Gordon George*, A Significant Event in a World of Peril: Reopening of the Vatican Council in 1925; *G. M. Sargeaunt*, A Stoic Vision of a Living Universe; *Mrs A. C. Osler*, The Terror of Ideas.

THE JOURNAL OF PHILOSOPHY, XXI, 4: *Ralph Barton Perry*, Is Society a Person?—5: *Joseph Ratner*, De-Moralizing Freud; *D. W. Prall*, Value and Thought-Process; *Clark L. Hull*, The Thirty-Second Annual Meeting of the

American Psychological Association.—6: *Edwin Diller Starbuck*, Life and Confessions of G. Stanley Hall: Some Notes on the Psychology of Genius; *Charles E. Whitmore*, A Rejoinder on Utility.

THE PERSONALIST, V, 2: *The Editor*, Nature and Human Nature; *John Wright Buckham*, Borden Parker Bowne: Personalist; *John Richard Moreland*, Resurgam, verse; *Albert C. Knudson*, The Social Gospel and Theology; *Ruth Irving Conner*, Two Bits of Verse; *Belle Cooper*, The Passing of Alice Meynell.

THE AUSTRALASIAN JOURNAL OF PSYCHOLOGY AND PHILOSOPHY, II, 1: *Rudolf Eucken*, The Relation of Philosophy to Religion; *The Editor*, A New Study of Christianity and Christian Origins. (V. Macchioro.) I. Gospel and Church; *J. Alexander Gunn*, Great Thinkers. I. Spinoza; *F. A. W. Gisborne*, Patriotism; *T. A. Hunter*, What is Wrong with the World?; *H. J. Priestley*, On Cassirer's *Substance and Function*.

PSYCHOLOGICAL BULLETIN, XXI, 2: *J. E. Anderson*, Proceedings of the Thirty-Second Annual Meeting of the American Psychological Association; Abstracts of Papers.—3: Abstracts of the Periodical Literature.

PSYCHOLOGICAL REVIEW, XXXI, 2: *Lewis M. Terman*, The Mental Test as a Psychological Method; *Albert P. Weiss*, Behaviorism and Behavior, II; *William R. Wilson*, Principles of Selection in 'Trial and Error' Learning; *Raymond Holder Wheeler*, A Psychological Description of Intelligence.

THE AMERICAN JOURNAL OF PSYCHOLOGY, XXXV, 2: *C. C. Braddock*, An Experimental Study of the Visual Negative After-Image; *M. Shimberg*, The Rôle of Kinaesthesis in Meaning; *G. H. Taylor*, Color Testing and the Psychology of Color; *C. E. Ferree* and *G. Rand*, The Cause of the Disagreement between Flicker and Equality-of-Brightness Photometry; Flicker Photometry and the Lag of Visual Sensation; *H. Cason*, The Concept of Backward Association; *J. D. Weinland*, The Effect of Grouping on the Perception of Digits; *A. D. Bush* and *A. M. Austin*, Weber's Law as Tested by Flowing Increments; *E. S. Robinson* and *C. W. Darrow*, Effect of Length of Lists upon Memory for Numbers.

THE BRITISH JOURNAL OF PSYCHOLOGY, XIV, 3: *Godfrey H. Thomson*, *Ed. Claparede*, and *L. L. Thurstone*, The Nature of General Intelligence and Ability; *James Drever* and *Ernest Jones*, The Classification of the Instincts; *Wolfgang Köhler*, The Problem of Form in Perception; *K. Koffka*, The Perception of Movement in the Region of the Blind Spot; *M. Gopalaswami*, 'Intelligence' in Motor Learning; *T. H. Pear*, Imagery and Mentality; *Honoria M. Wells*, A Note on the Psychological Significance of the Psycho-Galvanic Reaction.

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